NORTHWEST TECH. DEPT.
V.21 (1957) - V.22 (1958)

THE UNIVERSITY OF ALBERTA ARCHIVES
83-50
Box No.

THE NORTHWEST
Technocrat

SAMPLE
COPY
Oct. 57

IN THIS ISSUE:

- **Security Through Insurance**
- **Designed vs. Haphazard Education**
- **Squeeze Play on the Worker**
- **The Spirit of the Constitution**

No. 189 (Vol. XXI)

25¢

Sec. 3, R.D. 12247
TECHNOCRACY INC.
Seattle, Wash.

A Growing Urgency

ANNOUNCEMENTS of fission and fusion development programs by wormy little dictatorships and third-rate nations around the world are adding ever greater ugency to a proposal that Technocracy made many years ago—that the U.S. and U.S.S.R. establish a modus vivendi in the form of a military and economic alliance for mutual protection. The effect of such an alliance would be to restrict severely the war-making potential of lesser entities. Such an alliance would be a practical course of action in view of acquisition by small nations of the means to wage devastating war. It would not signify endorsement, either by us or by the Russians, of one another's systems of operation.

It is becoming increasingly apparent that a world war could very well be precipitated by some minor political entity which possesses modern weapons of war and irresponsible self interest or other motivations. With world tension and factional suspicion being what they are, suppose that a minor nation succeeded in making and then exploding a high-powered bomb in either the U.S. or U.S.S.R. Under such circumstances, there likely would be an immediate retaliatory reflex action from the major entity so affected against its counterpart which quickly would become a full-blown war of annihilation involving the entire world.

Under the grossly inept leadership of the U. S., scientific information concerning fission and fusion and atomic weapons now is being distributed abroad. Thus, the future chances of a fascist Syngman Rhee, Nasser or Adenauer pulling the trigger are greatly increased.

The conflict of interest of the U. S. Price System, aided and abetted by ecclesiastic influence principally of the Roman Catholic Hierarchy, with that of the U.S.S.R. has set up the predisposing condition for World War III. Regardless of the current 'peace talk' between nations of the world, we could find ourselves in war without warning unless steps are taken at once by the U. S. and Russia to establish a sound basis for conduct on war-making potential that will affect every nation in the world.

It cannot be predicted with absolute accuracy how Russia would react to a genuine U. S. proposal to establish an alliance to take definite preventive measures against war. But it is reasonable to assume that the Russians do not want to be blown up with H Bombs any more than the majority of Americans. Therefore, it is probable that agreements might be reached with Russia that would tend to insure world peace. At the very least, a reprieve would be granted from the dangerous drift toward war, which would provide time to develop a perspective on world affairs. As it is now, nations of the globe find themselves hopping from one crisis to another. Eventually, there could be a major explosion.

Technocracy is unique in its view because it is solely concerned with a scientific analysis of the North American and world situation. Petty political and business interests mean nothing alongside of the welfare of North America. Technocracy points out that the U. S., dominated as it is by business and political considerations in dealing with the U.S.S.R., is at least as much responsible as Russia for the present world tension. Should North Americans continue to bow to the propaganda of their Price System, it is almost a dead certainty that the worst possible results will accrue from the present conflict of interests between the U. S. and Russia.

It is time to be direct and sensible with the Russians instead of sparring for an opening to take a swipe at them, because we couldn't win a war with them anyway, any more than they could win a war with us. And as ironic as it may seem, we may need the protection of the Russians against our decrepit 'Allies.' After all, North America and Soviet Russia are the two wealthiest land areas in the world.

—Editorial Board

COVER PICTURE

MACKINAC BRIDGE

In planning its erection of this five-mile-long Mackinac Straits Bridge, American Bridge Division put one electronic computer to work calculating stress and other data necessary to the project, which will be completed late this year and link Michigan's upper and lower peninsulas. The Division believes this saved about 10,000 hours of that precious commodity, engineering time—or the time of five engineers for a whole year.

—Photo courtesy of U. S. Steel

?
OCTOBER 1597

THE NORTHWEST
Technocrat

SECURITY THROUGH INSURANCE

Under the private enterprise phase of the Price System, it is very difficult to arrange for the development of an economic venture on a mutual basis for mutual benefit. But, if it can be organized as a racket, with a sizeable payoff to the powers-that-be, it will not only be permitted but will be encouraged, and sometimes promoted by the social administration with coercive measures. This is the present trend with respect to insurance.

THE AMERICAN PEOPLE would never admit to a belief in socialism, yet they are all for it when it is properly disguised; and they will even pay black market prices for it. Socialism is officially tabu, so that label cannot be used for it. Out of fear of the Invisible Gestapo, symbolized by an all-seeing image of a ruthless tyrant [which has a remarkable likeness to J. Edgar Hoover], the typical American will deny before his God, his conscience, and his fellowmen that he has any affiliation whatsoever with, or any yearning for, that 'most insidious of all evils,' socialism. But the American citizen is a champion performer when it comes to practicing hypocrisy. This is as much true of his attitude and behavior toward socialism as toward anything else. He is at heart a socialist, a seeker of paternalism, a chronic evader of personal responsibility. He wants to be pampered and cared for by society and have society relieve him of the burden of paying for his mistakes and misfortunes.

Because this is so, the insurance brokers of America are doing a gray market business. One of the larger items on the American consumer's budget is insurance — life insurance, property insurance, automobile insurance, health insurance, liability insurance, unemployment insurance, business insurance, old age insurance, and even hereafter insurance [called salvation]. In fact, he has about every kind of insurance that can be sold to him at a profit by the brokers. He is even a sucker for phoney lung cancer insurance sold in the form of smoke filters in cigarettes. The American citizen does not buy flood insurance, war damage insurance, or atomic fallout insurance for the simple reason that these are considered as too great risks for the brokers to handle. However, this field is also looked upon as a potential market, so there are proposals that these latter risks be socialized even more than the others—to the extent that the government shall assume the burden of paying off in bad times while permitting the private insurance brokers to collect the profits in good times.

The homeowner will carry fire insurance on his buildings and contents in order to avoid heavy personal loss in case of disastrous fire. He is content to let others pay for most of his loss should it come. And for this, he is willing to pay into a fund for covering the losses of others [as well as the administrative costs and rakeoffs at the broker's office]. This yearning for the socialization of risks also permits one to be shaken down for insurance premiums on his car, his family, his other assets [real and intangible], and on his future security, as well as on his home. This socialization he will accept so long as it is not labeled for what it is, socialism.

Consequently, among the biggest, richest, and most profitable financial institutions in the world are a number of American insurance companies, whose business is the administration of economic socialism. In fact, the insurance com-

The Northwest Technocrat is published quarterly by Section 3, R.D. 12247, Technocracy Inc., 2208 Eighth Avenue, Seattle 1, Washington. Entered as second class matter July 11, 1949, at the Post Office of Seattle, Washington, under the act of March 3, 1879. Subscription rate is $1.00 for four issues. Single copy 25 cents. Continental Headquarters of Technocracy Inc. are located at Rushland, Pennsylvania. Entire contents copyrighted 1957 by Section 3, R.D. 12247, Technocracy Inc.

panies are becoming so large and powerful that they may soon be competing with the federal government for control of the nation's finances.

Any racket in the Price System can flourish if the operators restrain their greediness to the extent of paying out eighty percent of what they take in. [When they try to get by with paying out only twenty percent, their days are numbered.] Consequently, the insurance companies are not too fussy about paying claims so long as they do not exceed a certain percentage of the intake. In doing so, they provide a lure for the security conscious American and, incidentally, provide an incentive for the smart boys who hope to make a little on the deal.

Insurance is made to appear even more attractive in price than it might be otherwise since much of the intake of the insurance companies is derived from the investment of the funds paid in by the insuree as premiums; hence, it does not show up on the cost price of the individual policy. The concealed intake is further amplified by the cancellation of many policies before maturity. Therefore, some policies appear to pay the beneficiary more in the long run than is taken in on them.

But, just in case the lures provided by the insurance brokers are not sufficiently attractive, further pressure is put upon the public through legislation and 'popular demand' [meaning a loud-mouthed claque for the insurance people] to compel general acceptance of this form of racket-socialism in ever broadening fields of coverage. This pressure particularly applies at present to automobile liability insurance and to fire and damage insurance on property under mortgage.

Under the private enterprise phase of the Price System, it is very difficult to arrange for the development of an economic venture on a mutual basis for mutual benefit. But, if it can be organized as a racket, with a sizable payoff to the powers-that-be, it will not only be permitted but will be encouraged, and sometimes promoted by the social administration with coercive measures. This is the present trend with respect to insurance.

Welfare of the Individual

The Hoover Depression shocked the American people into a realization that the welfare of the individual was more than a private matter; that it was a matter to be dealt with by the social administration. This concept was rigidly opposed by the Hoover administration but expediently favored by the Democratic Party leaders, with the result that Franklin D. Roosevelt won the election by a landslide. During the New Deal, the majority of Americans gradually acquired an eagerness to accept governmental paternalism, however slight the benefits. With World War II and the postwar prosperity boom, the American citizen acquired the belief that the society owed him not only a living but a very good living at that. Of course, he felt this living should come through high-paying jobs supplied by subsidized employers, so as to remove all obvious taints of socialism. Nevertheless, unemployment compensation and social security payments were very welcome when the occasion for collecting them came around. We are told these are not actually to be considered as 'handouts,' rather as a sort of insurance dividend.

On their faith in the beneficent socialism of the

CONTENTS

No. 189 [Vol. XXI] October, 1957

Page
A Growing Urgency 2
Security Through Insurance 3
Designed vs. Haphazard Education . . 6
Have You Observed? 10
Squeeze Play on the Worker 12
Operation Cutback 14
Developing Trends 16
Technocracy in the Field 18
The Spirit of the Constitution 20
Nimble Steel Fingers 25

EDITORIAL BOARD

Editor . . . . George Kellogg
Assistant Editors . . . . . Ruth Berge
Harry Briggs
Editorial Assistants . . . . Fred Botts
Edith Jess, Secretary
Business Manager . . . . Rina Corcoran
Circulation Manager . . . Lucy L. Barnes

Printed in U.S.A. by volunteer and union labor
on Technocracy's own press

American economic system, many millions of Americans have acquired split-level homes in the suburbs, new cars in the garage, and a houseful of late model gadgets. They have an intuition that Uncle Sam will not let them down if all does not go as well as hoped for.

Americans want individual security, and they insist that the society shall guarantee it. They refuse to be impressed by the moralistic ravings of certain multi-millionaires, such as Herbert Hoover [whose security is already made and protected by the statute of limitations], who deplore the drift away from individual self-sufficiency toward socialistic paternalism.

Pittance Handouts

When another depression does come, the American people will not accept the pittance handouts of the New Deal. They will want paternalism as it has never been practiced before [except in behalf of a wealthy few]. The New Deal days of cheap socialism are gone forever. The burden of carrying 20 million on 'relief' now would about equal that of the present budget for war preparations.

The interest in security does not extend beyond the domain of the individual. Actually there is manifested very little concern for the collective security of all the people. However, this does not prevent citizens from joining bloc pressure groups for the purpose of gaining greater 'security' for those groups, and consequently for themselves. But there is no bloc pressure group made up of all the people; that is, there is no consumers' pressure group.

In this connection, we shall have to discount the national mania for military 'defense' as an example of popular interest in collective security, especially as it is viewed by the individual. The individual tends to look upon it as a means of providing him with a job, and he supports it mainly for that reason, although he is annoyed by the taxes which he must pay to support it. The administrators look upon it as an expensive boondoggle—a choice means of distributing the take from taxation. And in the background the 'experts' admit that the present defense system provides no adequate security at all; rather, that it is likely to incite a showdown war of the most devastating sort.

In the place where it would count the most, Americans as a whole have no insurance. This is in the field of irreplaceable resources, such as coal, petroleum, metal ores, and mineral fertilizers. Only the feeblest of efforts are being made to prolong the exploitation of such resources. For the most part, the profits of business enterprise determine how fast they shall be depleted. Business has no long-term interest in the future, only a rabid desire for a rapid merchandising of the available goods. As a consequence, after only a little more than a hundred years of concerted exploitation of the resources by American business, the nation is running short of iron ore, copper, lead, zinc, and mercury; and it is beginning to run short of petroleum. [It is also running woefully short of good timber.] There is no kind of insurance policy available which will replace the oil in a depleted well, or refill the Tri-State caverns with lead and zinc ores again, or rebuild the iron ore deposits of Mesabi.

The only insurance that could be applied in these cases would be a long-range program of planned use involving the maximum utilization of the minerals consumed. That is a program which no mere socialism, however progressive it may be, would be able to put into effect or administer.

Insurance - socialism, the same as all other phases of politico-economic socialism, is a Price System institution. As such, it is a means of manipulating certain monetary values under a scarcity situation, relieving the distress of a few and charging the costs [well-padded, of course] to the many. Insurance is not a technique for distributing abundance, which presently is becoming the most urgent problem on this Continent. Insurance is a palliative, not a cure, for certain Price System misfortunes.

Ideal Insurance Policy

The ideal insurance policy, from the standpoint of the individual, would be one which required no payment of premiums, required no special qualifications, applied automatically from the day of birth, and paid for all one's needs and wants to the day of one's death and then took care of the funeral. Of course, there is no such insurance policy available under the Price System. It would be completely incompatible with the system; for, the Price System requires that a price be paid, also that more be paid out on the average than is received in return.

Yet, just that kind of an ideal policy would be available to every citizen of the Continent upon the obrogation of the Price System.

The only 'insurance policy' that would provide abundance and security for life and not cost a cent would be the Contract of Citizenship of a Technocracy. With such a Contract, the individual would receive the facilities and wherewithal for the enjoyment of an abundance of physical goods and services. His 'payment' would consist of his share of the man-hours required to operate the society, a very small fraction of his life considering the degree of automaticity that would prevail in the Technate.

The welfare and security provided by the Technate could not be called socialism since socialism is a political and economic philosophy concerned with a scarcity. Therefore, Technocracy does not carry the stigma which now bedevils socialism as a concept. Nor can it be compared with capitalism or any other phase of the Price System. Instead, it is a design for the production and distribution of abundance in a Continental area; and, as such, it is insurance against poverty, toil, insecurity, debt, and crime. It is the most insurance that any area can offer to any people, and at the least cost to them. And, best of all, it is here and now, ready to be applied whenever enough citizens of North America are willing to sign up and, thereby, validate it.

Technocracy is the only insurance for the people of North America which can provide them with the ultimate in security, and also assure the continuance of their society for the maximum duration.

—Wilton Ivie, CHQ

Designed versus Haphazard Education

There is evidence galore of the widespread recognition of the fact that our children's future and the entire social structure are threatened by the lack not only of basic schooling, but also of the advanced education which is essential to a high-energy civilization.

AN UNUSUAL NOTE in the field of education is struck in an article which appeared in the Saturday Evening Post of October 6. [Don't Call Me a Sissy, By Robert M. Haley as told to Andrew Hamilton.] The narrator, a young veteran, says of himself: 'As a youth I had no burning ambition to teach. When I entered U.C.L.A. in the fall of 1941 I intended to be a lawyer or a newspaperman. I played end on the freshman football team and completed a year of university work before enlisting in the Air Force the following spring.'

In 1946 Mr. Haley re-entered U.C.L.A. and completed his undergraduate studies. In other words, he was a typical ambitious young American well on his way toward becoming a conventional professional or business man. Yet today, to his own continuing amazement, he is well and happily established as a grade-school teacher in a Los Angeles school.

How did it happen? Quite by accident. To help pay his school expenses he worked afternoons and Saturdays at a grade-school playground for $1.20 an hour, issuing equipment, refereeing games and supervising crafts. He enjoyed this job and there, for the first time, found to his delight that he liked kids. One day the school principal asked, 'Why don't you go into teaching? You have a rare gift for it.'

'The decision wasn't easy,' says Mr. Haley. It meant abandoning a legal career and investing another year and a half in education studies. He now bore heavier responsibilities; was married and had a stepson. 'But I sensed potent magic in teaching the razor-honed minds of youngsters. I felt I could be more effective with eight-, nine- and ten-year-olds than those of high-school age.'

Mr. Haley's story of his personal experience is merely incidental to the main theme, which has to do with the increase in the number of male teachers now engaged in teaching in the nation's elementary schools. 'Most men elementary teachers today,' says Mr. Haley, 'are like myself, veterans in the thirty-to-forty bracket—young marrieds out of Suburbia . . . Over-all, we're a long jump from the stern, high-collared, knuckle-rapping schoolmasters of a century ago. Until 1820, teaching was strictly a man's job. The Industrial Revolution and the spread of free public instruction after the Civil War destroyed this masculine dominance. Penny-pinching school boards discovered that women could be hired for about half the salaries paid men. In the early 1940's, the pendulum had swung so far that 96 percent of our teachers were women.

'But soon after World War II a wholly unexpected phenomenon occurred. Ex-service-men surged into colleges of education and began preparing for teaching careers under the GI Bill of Rights. Not merely those who had served in desk and noncombat jobs but battle-decorated fliers, blue-water Navy men and Ernie Pyle-type doughfoots.'

'Why?'

Dr Aubrey Berry, manager of the Office of Teacher Placement at U.C.L.A., gave a good reason. 'For some, teaching offered a security they'd never known in depression and war,' he said. 'For many others, the choice was pure-idealism: they'd seen the misery of war, and felt their greatest contribution to humanity lay in teaching.'

This opinion was corroborated by a survey used for earning an M.A. degree at the University of Southern California by another World War II veteran, himself now an elementary teacher. He asked this key question of several hundred men teachers in the Los Angeles elementary system: 'What caused you to enter teaching?' And, the report states, a solid 62 percent answered, 'To work with young children.' The rest scattered their replies among such reasons as 'security,' 'working hours,' 'chance for advancement,' etc.

Mr. Haley has very definite opinions about what was once a woman's job. He thinks that America needs more men teachers because they have something special to offer the younger generation. He reasons that a balance of men and women teachers at all levels, including the elementary, will produce a better kind of education for America's 22,000,000 grade-school kids.

Pressure Off the Girls

Undoubtedly, both boys and girls need daily contact with men during their formative years; a condition rarely achieved in this day of Price-System struggle to achieve and maintain any kind of security or social standing. This is particularly true with city-bred youngsters, who see little of their fathers. A boy's education is often all female: mother, nurse, baby-sitter, teacher, piano instructor, Cub Scout den mother. As for the girls, women tend to be harder on their own sex and to consider little boys 'cute,' says Mr. Haley. 'A man teacher, therefore, takes some of the pressure off the girls.'

Among a group of 438 psychologists and school administrators surveyed, some 83 percent of the psychologists and 89 percent of the educators were convinced that men teachers provide today's schools with emotional ballast which results in steadier discipline and a more rounded educational experience. This discipline seems to be most effective at the fifth and sixth grade levels. However, until the quite recent and more or less successful agitation for better pay for teachers, family men could not afford to be teachers, especially in the lower grades. Now, in the Los Angeles area and some others, a new 'single-rate' contract assures the same pay regardless of whether the teachers are in the grades or in high school. But, the opportunities for advancement are still far below those in the business world, so that teaching still requires a definite sacrifice from men of high caliber.

Men Teachers

Contrary to the common belief, men teachers in elementary grades are no longer 'as scarce today as lamplighters in New York or carriage-makers in Detroit.' According to figures of the National Education Association, 94,277 men helped teach America's grade-school kids last year, and their numbers are slowly increasing. A 50-50 ratio between men and women teachers is generally considered ideal, but we are still far from that goal, and it is not likely to be achieved under the Price System. We quote: 'Last June, however, our colleges of education turned out **38,731 potential elementary teachers,** and 5,192 of them were men —an encouraging trend. [Emphasis ours] This recent male infiltration into the so-called 'petticoat profession' is one of the significent educational developments since World War II.' But, the basic significance of that statement is not even hinted at in the article, as we shall show later.

However, such angles as these are seldom publicized in the newspapers. Every so often there is a wave of publicity stressing the deplorable condition of our school system due to the lack of buildings, facilities, and especially teachers. Such publicity is more likely to be concerned with disparaging and sensational propaganda setting forth the growing disparity between our own failing educational situation and Russia's phenomenal gains in that line. This is usually sparked by the worry of our so-called leaders over the critical shortage of scientifically trained youth.

We have at hand a series of such articles which have appeared in the Portland, Ore., papers. We quote from one INS release of Jan. 23, 1956, which is typical:

'The situation, according to top authorities, is so bad that the aircraft, electrical equipment, petroleum, paper, food, and primary metals industries are crying for relief. Such organizations as the National Science foundation, the Foreign Policy association, and the Air Force association, contacted by International News Service, are highly alarmed. A general belief prevails that the American educational system should be overhauled and subsidized in a hurry if the United States is to maintain its leadership in atomic-age production and development.'

The London News Chronicle says: 'In a world of competitive coexistence where technical skills are essential to survival, the threat is obvious and enormous.'

U. S. atomic energy chairman Lewis L. Strauss says 'the United States can lose the cold war—and a hot one—in the classrooms.'

Gill Robb Wilson, head of the Air Force association, points out that of some 7,000,000 boys currently in high school, only a pitiful few thousand will ever be exposed to the higher education which will fit them into the crying needs of the aviation industry.'

Adequate Supply

Stanley H. Shirk, Executive Director, Scientists of Tomorrow, had this to say in a guest editorial in the Oregon Journal: 'Let's not get into an educational race with Russia, but let's take positive steps to assure an adequate supply of science teachers, scientists and engineers to meet the needs of our land . . . The solution to the problems of technical man-power and science teacher shortages is, basically, one of education. However, ariving at the solution is not simple, because the problem has several facets, **certain of which are rather deeply rooted in our social structures.** [Emphasis ours.] The problem of science education, from the cultural and the vocational points of view, must be attacked on both sides of the teacher's desk—adequate teacher training on the one hand, incentives to youth interest in science on the other.'

Mr. Shirk says further: 'Adequate teacher training in the sciences implies a change in the state teacher certificate requirements whereby the teachers, particularly in the grades, will be required to have a broad scholastic exposure to the sciences. Furthermore, just as state law requires the teaching of the three R's, so it could and should require daily science instruction in every grade for every pupil. Why shouldn't a graduating eighth grader be conversant with the elements of biology, physics and chemistry? Why shouldn't our eighth graders be challenged with elementary problems from these areas which involve the application of arithmetic?'

An editorial by Dorothy Thompson comparing our educational situation with Russia's, deplores the lowering of our standards, especially in contrast with those of sixty years ago. She states: 'Today possession of a high school diploma may not assure knowledge beyond that once transmitted before the sixth grade. The intellectually ambitious student is pulled down to the level of the stupid and lazy.'

The Oregon Journal of March 18 discussed an article by John A. Perkins, president of the University of Delaware, from which we quote: 'The natural resource which is in shortest supply in the United States is trained brain power. The shortage is so acute as to endanger our national health, security and prosperity. Some day you may have to do without a doctor in an emergency; it is estimated that by 1960 the country will have 30,000 too few doctors. Shortages of dentists and nurses will be equally grave. Our colleges are now graduating annually 20,000 fewer engineers than are needed. These are the people whose efforts in research laboratories make jobs for us all. It is they on whom we depend for defense against atomic bombings.' And the editor says: 'That is how serious it is. We have our problem of 'quantity' in education. But it is becoming increasingly clear—and important—that more emphasis [must] be put on 'quality.'

So, there is evidence galore of widespread recognition of the fact that our children's future and the entire social structure are threatened by the lack not only of basic schooling, but also of the advanced education which is essential to a high-energy civilization. The warnings quoted were issued more than a year ago. The eminent people quoted were all alarmed at the situation revealed by the many surveys being made; but they were unanimous in only one thing; namely, that a serious situation existed about which something should be done. Only one of them, Mr. Shirk, noted that the problem has several facets, 'certain of which are rather deeply rooted in our social structures.' He said, 'We must take positive steps,' etc., etc., but he had none to present, beyond some alterations in state certificate requirements. Not one of the commentators had any solution to offer. There was no recognition at all of the fundamental fact that education itself represents but one phase of the basic problem facing America today. That problem is the failure of the Price System to operate our economy on a price basis due to its inability to distribute abundance. As proof of that failure in the point at issue, ask yourself how much progress has been made during the past year toward overcoming the evils complained of.

Price System Limitations

In the matter of building new schools and equipping them, no one ever complains that we lack either the physical materials of which such buildings are made, or the personnel to build them. The only thing lacking is the money to pay for them. Actually there is an abundance of the physical requirements, and the know-how, to provide an ever-enlarging educational plant of the highest possible type. Only Price System limitations interfere.

Likewise, there is also an abundance of personnel in our population of some 168 millions of people from which to provide plenty of teachers, both men and women; and here, too, it is only Price System obstacles that interfere. Witness, the 'solid 62 percent' of the Los Angeles men teachers who are in that work 'to work with young children.' Undoubtedly there are a great many more who 'have a rare gift' for teaching but who, because of the perverted Price System standards and restrictions of today, never even have a chance to discover the fact; as well as many more who have the qualifications but who go into other fields because of the greater remuneration offered.

Among the writers quoted above, the only suggestions made for alleviating the seriousness of the present situation in industry were concerned with the idea of 'offering greater incentives' to induce young people to study sciences; implying, of course, better financial returns.

In Technocracy's plan of scientifically designed social operation there is no financial return for anybody—no compensation or pay for work done. Instead, as a function and obligation of his citizenship, each citizen, man and woman, will give his or her full share of service for some twenty years in his chosen line of endeavor. 'Remuneration' will be the same for all—abundance, with full security, for life. Abundance and security can be neither achieved, measured, nor controlled by dollars and cents.

In quoting, above, that in June 1956 our colleges of education had turned out **38,731 potential teachers,** we said that the basic significance of that statement had not even been hinted at. That significance lies in the fact that those graduated were only 'potential' teachers; that they are still not committed to do the work for which they have received special training, and they are vulnerable to all the distractions and counter-attractions of the Price System. This in itself represents a tremendous social waste which would not occur if the students themselves had been properly chosen for that training on the basis of their inherent aptitude and proven fitness for the job of teaching. Such a testing would be a fundamental factor in the education and training of all children in the kind of scientific social order which Technocracy proposes.

Opportunity for Maximum Development

This does not mean that children would be ordered or 'regimented' into specific lines of work. It does mean that each child would have the opportunity to get the kind of scientific observation and advice that would discover his greatest aptitudes and potentialities, so that he could be properly led into the field of endeavor which would afford him the greatest chance of achieving a genuine success and thereby making his greatest contribution to society. He would then be given all the specialized training necessary for his maximum development in his own chosen line. This would be, of course, over and above all the fine general education each child would receive as his natural birthright, to the extent of his ability to absorb it.

Today there are great numbers of children who never have the chance to learn what they are fitted for, because it is nobody's job to find out, or because the family's financial status is such that they are forced to leave school at an early age and take up whatever job opening happens to turn up, if any. Given such a condition, together with the constant down-grading of our present school system, it is no wonder the situation is becoming ever more critical. No other trend is possible under the Price System. It can offer only more of the haphazard, hit-or-miss type of education under which our children and the entire country are now suffering.

Contrast this with the scientifically designed type of education proposed by Technocracy. If you are truly concerned over the present trend, which can only continue to produce a heterogeneous mass of social misfits, you will want to examine Technocracy's program at the first opportunity.

No, the vote you cast at election time will NOT solve this problem, nor any others, for you or anyone else except the politicians you have elected to soft parasitical positions. Of course they are now sitting pretty for as long as their terms of office shall run. But what are you preparing to do about education as a functional social service?

—Lucy L. Barnes, 12247-3

Have You Observed?

. . . **Have you observed** some of the quotations such as these taken from 'Will Automation Take Your Job?' an article in 'True,' Sept., 1955?

> Eisenhower: "I see nothing but good stemming from automation. I am convinced that an expanding economy will find work for those displaced. As the nation finds ways to do more work with less men, there always springs up more work."

Mr. Eisenhower's statement, though perhaps colored by what he thought the public might like to hear regarding jobs, illustrates the striking difference between the archaic thinking of the politicians and the willingness to accept social change of the Technocrats. The politician wants to find work for everybody; the Technocrat would take advantage of automation to the nth degree and develop it to the point that human labor would be reduced to a minimum. The politician is unable to think of an economy which would be able to produce and distribute goods and services without labor and many 'jobs'; Technocracy has conceived the Technate of North America, with its blueprint for producing and distributing abundance to every citizen without price and profit, but with a minimum of human labor or even of human attention.

The politician indulges in a bit of double-talk in the latter part of the statement, and in effect is saying that labor-saving makes more labor. Technocracy has maintained for many years that 'To produce more, we must work less,' and our admonition has been 'Let the machines do the work.'

We quote from the article to illustrate why we must get the human being out of the production picture if we wish to have more goods and services. 'Military people are among the most enthusiastic supporters of automation, for military demands are heaviest when labor is shortest. "Wars are won on the production line," says Brig. Gen. Herbert L. Scofield, Chief of the Signal Corps Procurement and Distributing Division. "Human errors in production are a plague in time of warfare. As much as 20 percent of a day's output of radios, walkie-talkies, and other electronic communications devices were rejected by the military services during World War II because of human failure. The new Automatic Component Assembly System, which is now being built for the Signal Corps by General Electric, will produce, automatically, every type of military electronic equipment needed in wartime".'

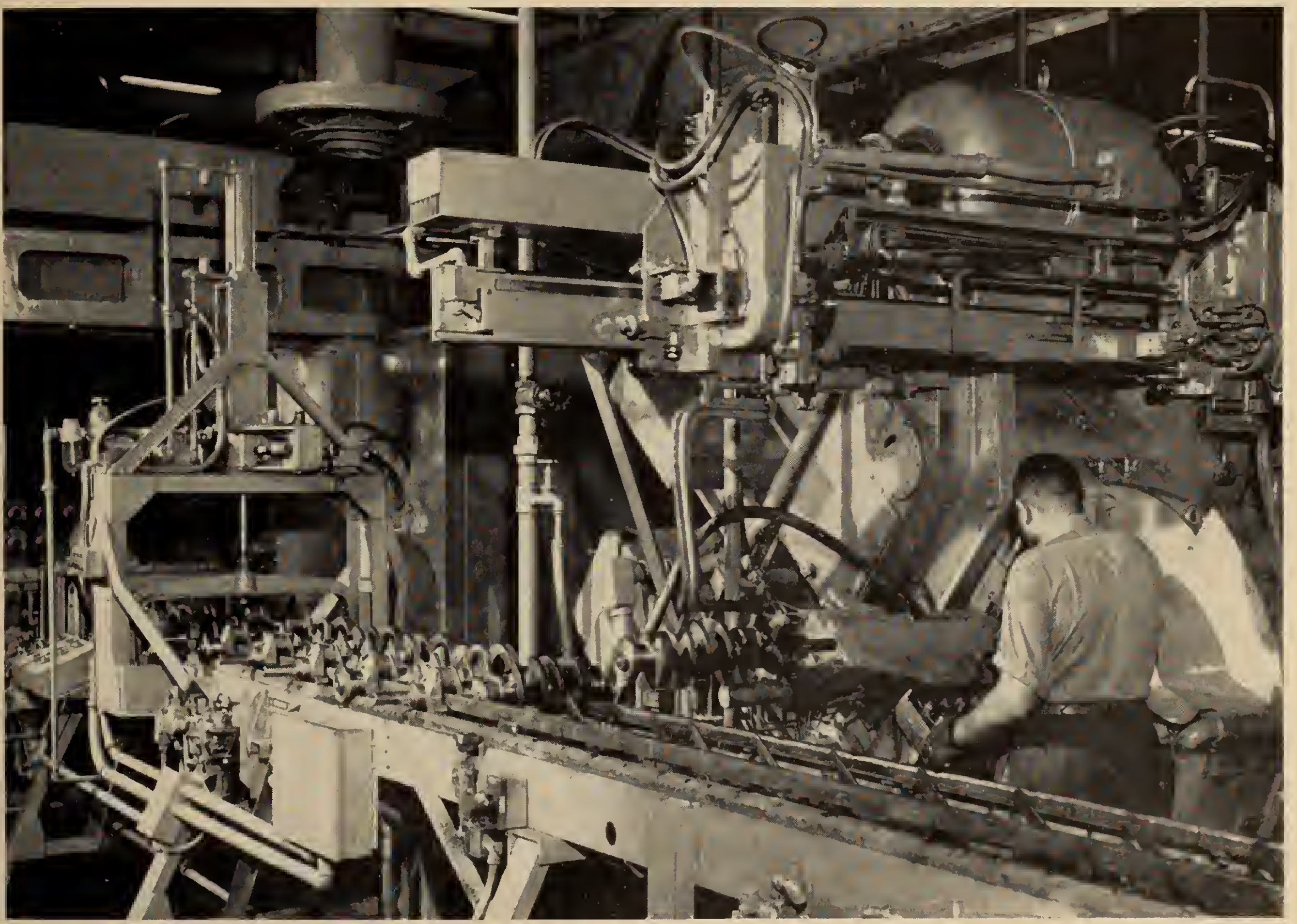
What is true of military electronic equipment is no less true of that intended for civilian peacetime use, and the same principle is true of every type of useful article amenable to mass production techniques.

. . . **Politics and Private Power** have won another battle, and Public Power has finally been defeated in the contest over congressional authorization of the Hell's Canyon high dam. According to a dispatch published July 26, the House Reclamation sub-committee voted 19-2 to defer action on the Senate-passed Hell's Canyon Dam bill until after Feb. 1. This effectively disposes of the issue for now and prevents introduction of another bill. It is widely conceded that this action is tantamount to permanent defeat for the high dam. Construction is proceeding on two of the three low dams previously authorized which will be controlled by the Idaho Power Company.

. . . **South of the Border,** Down Mexico Way, things technological are happening. The heat generated by the consumption of extraneous energy in the United States has ignited the fires in our neighbor to the South, even as it has in the past in Canada. U. S. News calls it 'New Boom South of the Border.' Americans are investing new capital in Canada at the rate of more than a billion dollars a year, and in Mexico a tenth that amount but at an increasing rate. With financial investment goes modern equipment and, best of all, social change. This modern complex will not use large numbers of peon type laborers; it will demand the same type of personnel as in the U. S. A revolution in education and training is under way and will continue on an increasing scale.

Will the peon be emancipated [from his job]? How can he become a consumer of modern industrial products? Doubtless there will be growing pains, but we in Technocracy welcome this new development as the last major step in the full technological development of the North American Continent [at least, to the extent possible under Price System operation]. The Technate cannot be far away. The siesta is over, Senores! We salute you, Amigos!

—12247-1



Automation removes an automobile crankshaft from a machine tool in Ford Motor Company's Dearborn engine plant, conveys it to the next machine, and loads that machine—all automatically. The automation device at left rotates selected crankshafts so that all are oriented properly for handling by the next machine. Electrical limit switches, tripped by the crankshafts, actuate the automation devices.
PHOTO COURTESY FORD MOTOR CO.

Squeeze Play On The Worker

Many industries today are administering knowledge and aptitude tests as a means of screening out those employables who have some latent ability. It is necessary that testing be done in order to find that relatively small percentage of employees who can learn to do the jobs that are available.

THERE ARE HUNDREDS of thousands of individuals looking for work, although it is difficult to determine just how many because of inadequate and conflicting reports that find their way into the press, mostly on the back pages of the newspapers. At this time there are estimated to be one hundred and fifty 'critical' unemployment areas in the U. S. where unemployment exceeds eight percent of the total available labor force. Almost daily reports from here and there say, for example, that one thousand railroad workers have lost their jobs on the M-K-T Railroad, as was reported recently. We know, too, that millions of people are listed as employed, even if their 'jobs' consist only of working a few hours per week cutting someone's lawn.

At the moment, the group being hardest hit is the one in which the workers are doing what might be described as 'general work,' jobs requiring only a relatively short time to learn and which involve mainly the use of muscle, or which consist of simple, repetitive tasks.

Market saturation by certain types of products, under the Price System, causing price declines, is one cause for unemployment. Another cause is the rapid strides in processing material into finished products with new technology, which cuts down the need for labor. Regardless of the cause for disemployment of workers in a given industry, it is becoming increasingly difficult for a displaced worker to secure employment in some other industry, because, as a general picture, the same thing is happening throughout industry—namely, a speed-up of operation and technological displacement of man-hours.

The unemployed individual who is willing to do 'anything' is finding that he is worth 'nothing' to an employer. If the person in search of a job has no particular skill that is in demand to offer an employer, he is faced with a very uncertain future.

Even some higher-skilled workers, as carpenters, machinists, welders, electricians, automotive and maintenance mechanics, and those of the plumbing crafts are being affected by rapid changes in industry.

It is loudly contended that we need to give new training to people who are losing their jobs in this scientific age, and that the majority of the displaced workers can be re-employed in skills for which there is a demand. Don't we need technicians, technologists, engineers and scientists as never before? It is absolutely true that we do need technically trained individuals in unprecedented numbers to maintain the momentum of our scientific progress in North America. It is also true that we are not training enough technical men and women to fill present day needs. The simple conjunction of these two conditions leads the naive to the erroneous conclusion that most of the displaced [and those who will be displaced sooner than they think] can be trained for more complex jobs in industry. The unpleasant fact is yet to be discovered, by those who talk about re-training, that approximately seventy-five percent of this population cannot, by reason of lack of native intellect, be trained for even a technician's job. Perhaps as many as ninety percent of our people could not be trained as engineers. There is a great weakness in ability to understand and apply higher mathematics. The capacity simply is not there to assimilate training for highly technical fields of endeavor.

Many industries today are administering knowledge and aptitude tests as a means of screening out those employables who have some latent ability. It is necessary that testing be done in order to find that relatively small percentage of employees who can learn to do the jobs that are available.

People Pushed into Parasitical Pursuits

More and more of the total working force in the U. S. has been pushed out of manufacturing and processing into parasitical pursuits, such as sales work.. Considerably less than half of the alleged sixty-two million employed are engaged in socially useful work. The enormous war and defense expenditures since 1940 have furnished purchasing power that would not otherwise exist for millions of people, and this has allowed millions of social parasites to subsist. Now, as the 'boom' days wane, with the disappearance of quick and easy money earned during the war years and as accumulated debt liabilities begin to have a paralyzing effect on paycheck purchasing power, salesmen are finding it harder to sell their wares. They are willing to settle for a wage of less than $2.00 per hour in other work if they can find the work. Preachers also are moving into the labor market! Farmers are another group that have been hit hard, in their case by a spurt of farm consolidations as the result of declining farm prices in the face of rising abundance. In general, none of these groups have much of a future in modern industry. They do not have the background or training to fit in.

Though the U. S. population steadily is growing older, industry is becoing more selective, not only as regards potential of the worker, but also as to his age. If industry is to train a man, it wants him young. Thirty-five years of age is definitely borderline for any training job, and forty-five, out of the question.

Unions Alarmed

Unions, which depend for their existence upon dues-paying members who are making enough money to pay their dues, have been stimulated in very recent years into taking a look at sweeping technological advances. Genuine alarm is being voiced in view of the rate at which union members are losing their jobs because of technological changes. Many words are being said by union officials about how their unions are determined to protect jobs of their members. But the process of large scale job loss goes on unabated. Union protection of jobs for tens of thousands of coal miners, railroad workers, steel workers and auto workers is a dead issue. Technology has displaced them forever. The list of industries being changed radically by new methods of production grows by the hour.

The argument for a shorter work week to spread the work around is a fine one. No one wants to work forty hours when he can live comfortably on less, if he is mentally sound. But business would have to be crazy to agree to pay a living wage to workers whom it sought to get rid of by using new technology. Of all the undesirable things that business is, it is not so stupid that it would give away in wages that which it is trying to gain through improved technology.

Organized labor has its back to the wall in North America. At one time in our economic history, organized labor filled a need by fighting for higher wages and improved working conditions. It was fighting the rapaciousness of business in a period of comparatively crude industrial growth. The whole issue has changed. Where once business sought to gain the services of a worker as cheaply as possible, now workers could not be used in many industries no matter how cheaply they would work! Machinery does the job far better and without complaints or pay. The maintenance of machinery is negligible when compared to wages and salaries.

Arguments Obsolete

The arguments of organized labor are as obsolete in North America as are arguments for the horse and buggy or kerosene lamps. The people of this Continent must begin to realize that what they really want is an income, not a job. When they do, then the technically trained personnel of North America will be able to set about organizing for them a society of economic security. On this Continent there are all of the tools and resources that are needed to build a civilization such as the world has never seen, and which would make puny by comparison any accomplishments that have been made to date.

Technocracy has stated and re-stated that the day is about gone when most individuals now working will be able to work as they have in the past. It is immaterial what one thinks about it. The great changes that have overtaken North America are moulding a new basic concept of social operation. We live by technology, and therefore must live with it. Rather than to be designed to control individuals, as all political governments are designed to do, the future government of North America must be designed to unite and operate the collective technology in this area. Such an operation can have only one objective: to function as a service organization in which price and politics can have no part.

The worker of North America can make one last major contribution to this civilization—to organize for the arrival of social change and to reduce by intelligent action the impact of the change. Then, for the majority, will follow a life of ease and contentment such as they would find hard to imagine, but which some know is possible with every new application of science.

Technocracy is here to show the way. By joining and supporting Technocracy, the wishes of North Americans for a life of security and well being will not be denied.

—Harry Briggs, 12247-1

Operation Cutback

FOR THE whole year of 1956 the aircraft industry was the nation's largest employer. Finding jobs and issuing pay checks for over 800,000 people is a large order. But when the desired result is to bolster the convictions of the politicians in high places, appropriations come easily. Aircraft by the billion dollars' worth has been flowing out of U.S. plants for 'friendly nations' and the United States defense for years. After several years of this practice the economy-minded members of Congress are taking another look at the huge sums being expended for aircraft. Coupled with the economy move is the 'peace scare' which threatens the need for so many aircraft, and surely the Air Force doesn't need them as quickly as they would under different circumstances.

This setting is the prelude to the possibility that maybe not so many people will have jobs in this industry in the near future.

It might be well to point out the interdependence of the people in a high-energy, highly integrated system such as the one in which we find ourselves. The people of the aircraft industry with the exception of a few private and commercial airplanes produce nothing which they use directly. However, the pay checks they receive from their aircraft jobs do buy a lot of products manufactured by other industries. Automobiles, automobile parts and service, white wear which includes freezers, stoves, refrigerators and clothes washers, furniture and food are a few of these items. Any sizable decrease in this market and other industries will be affected.

The role of the subcontractor is a precarious one during the time of schedule stretch-out or cutback in orders. The prime contractor tends toward doing the work in his plant, thus cutting out the subcontractor. During delivery stretch-out the subcontractor finds it quite difficult to maintain a large force to do the work. Some aircraft companies subcontract more than half of the work to be done in manufacturing an airplane. All of the aircraft companies with prime contracts rely on subcontractors to supply such items as electronic equipment, engines, brakes, and wheel and strut assemblies. When schedules slide or contracts are cancelled the subcontractor finds his firm in a squeeze play of maintaining his force by getting new business [all of these fields are highly competitive] or of decreasing the labor force employed by his firm.

The U. S. aircraft industry finds itself in a period of decreasing employment for the first time in almost a decade. Due to contract cancellations, delivery schedule slides and general economy procedures, the employment in the aircraft industry will decrease an estimated 40,000 to 100,000 during the last half of 1957. Many aircraft workers have worked a lot of overtime. The overtime pay, which might run as high as 20 percent of the base pay, has been cut off by the Air Force. The cut in Air Force budget is between 1.0 and 1.2 billion dollars.

The area which will probably suffer the most is that in Southern California where a great part of the aircraft industry is located. Most of the workers laid off at North American and Convair will probably find jobs in other aircraft companies but further cutbacks will bring widespread unemployment. If there are enough aircraft to 'maintain the peace,' finding jobs for disemployed aircraft workers may become as large a task for the politicians as the excuses for making so many aircraft in the first place. Concentrated in one area, this mixture can be very explosive.

Union officials are quite concerned about their members. At North American Aviation, Inc., many workers involved in the layoff found new jobs, but many lost their skill rating. Only highly skilled workers are finding it easy to relocate and keep up the payments on the car, the house and its gadgets.

The politicians of the Los Angeles Chamber of Commerce are crying that the scientific, engineering and production know-how in the area are vital to the Air Force. However, Mr. Politician, it isn't the engineer, the scientist or the production expert that is being laid off. It is many of the not-so-highly skilled consumers who are being disemployed.

Most of the aircraft companies expect no increase in personnel and many expect decreases in the last half of 1957. A few companies indicate that they will take care of this reduction in employment by attrition, that is, the quit rate will account for the reduction as the hiring programs have been cut to the bone except for highly skilled categories. But, if few companies are involved in a hiring spree we wonder if the quit rate will continue to remain high.

Many workers during times of possible layoffs tend to accomplish more at their jobs than previously. This practice of becoming more productive to hang onto your job means that further cuts could be made and still deliver the quota of product on time.

When plenty of product is imminent, the controls of the Price System are incapable of solving the problem. Abundance of product on the North American Continent seems to be at hand, and with it goes the problem of distributing it. Probably many of the disemployed will have time to consider this problem. Some of them will undoubtedly come to a Technocracy Section for help in solving it. We expect to see many of the unemployed investigating and discovering the solution at a Technocracy study class.

—George A. Kellogg, 12247-3

BUSINESS FAILURES UP

The number of business failures soared 11 percent ahead of a year ago in the first five months of 1957. The most significant gain occurred in the construction industry where failures were nearly a third higher. Retail trade also had a stiff increase in mortalities — up about 14 percent Failures did decline, however, in some of the manufacturing lines: food and kindred products; textiles, apparel and leather; iron and steel, and machinery. Liabilities climbed 20 percent in the January-May period this year, indicating that the size of debt per bankruptcy is on the increase.

—Bank Bulletin

MY TWO CENTS WORTH

I hear where the Russians have a rocket that can reach any part of the world and carry a hydrogen bomb too. I guess we'll have a rocket like it too before very long, only I don't understand how the Russians got ahead of us, because we captured more German scientists than they did.

These rockets will make war kinda simple in a way. One-half of the world can blow up the other half and vice versa without any airplanes, or ships, or soldiers. But it don't seem like the right way to fight a war, without any marching soldiers or waiting wives or big profits or high wages; and it won't be safe no matter how far you happen to be behind the lines, only there won't be any lines. All any country has to do is set up some rockets and aim them at targets anywhere in the world, and they will be all ready to fire on a minute's notice if it takes that long.

It won't do any good to plan for the future, because there might not be any future. I guess that part of it will be all right in a way, because the future never turns out the way you expect it to anyhow. But it does make you kinda disgusted with the politicians for getting us into this mess, while they squabble over things that don't matter, like whether we should fight with clean bombs or dirty bombs. As for me, it don't make any difference if I'm killed with one or the other, the same as it don't make any difference to you if you're stabbed to death with a clean knife or a dirty knife.

Even if you don't get killed in the next war, you won't dare associate with your neighbors and they won't let you come near them, on account of everybody will think everybody else is contaminated, and I don't mean with communism either. Maybe people will all be carrying guns to keep other people from getting too close.

Well, I guess that's enough gloomy thoughts for one day, so I will go to town and see a nice restful movie about an invasion of monsters from Mars or somewhere, to get my mind off what's happening in the world. Goodbye for now. I hope I'll be seeing you around some more, and I ain't kidding.

— Ima Moron

DEVELOPING TRENDS

IRON CRYSTALS IMPROVE COPPER, STEEL, NYLON

CHICAGO—Tiny crystals of a new kind of iron called alpha iron are teaming with copper, nylon, steel and other materials to make superstrong bearings, long-wearing automobile springs, better electrical conductors and other products.

The crystals are so small that 1,000,000,000 of them occupy less space than a grain of table salt.

The crystals are said to behave not as metals or fillers but as chemicals.

—Seattle Times

—We read about these improvements but things still wear out faster than ever.

100 HUNGARIANS STAGE PROTEST

EDMONTON—A group of about 100 Hungarian immigrants staged a demonstration here recently, just a few blocks from the immigration hall where they have been living since their arrival from refugee camps in Europe.

A spokesman said the group demonstrated in protest against living conditions at the immigration hall and to draw attention to the plight of Hungarians who have not been placed in jobs.

Immigration officials had no comment.

City police kept a close watch on the proceedings and no violence occurred. No arrests were made.

—Toronto Globe and Mail

FAST TAX WRITE-OFF LIMITED

WASHINGTON—The Senate Finance Committee voted to limit sharply the fast-tax-write-off program for the next two and one-half years and then kill it entirely.

The move to eventually halt the program took the form of a committee amendment to a minor House tax bill.

Certificates allowing rapid amortization on $23,000,000,000 worth of new plant and equipment have been issued since 1950 when the fast-tax-write-off program was revived because of the Korean war to promote defense-useful facilities.

The committee voted to limit any new fast-tax-write-off certificates to new and specialized items of military equipment bought by the Defense Department or Atomic Energy Comission. On December 31, 1959, the program would be shut down entirely.

Under the fast-tax-write-off program, a company receiving a certificate may write off against its federal taxes the cost of the new facility in five years instead of the much longer—20 or more years—normally required.

—Associated Press

—Plant expansion has been a leading factor in holding the economy at a high level. When the money for this expansion comes out of the pockets of private interests with no rebate we wonder what will happen to plant expansion.

WORK WEEK CUT AT TIRE PLANT

The first large production cut in 20 years at the New Toronto plant of Goodyear Tire and Rubber Co. of Canada, Ltd., has resulted in adoption of a four-day work week in the tire production departments it was announced by company officials.

About 50 tire production employees also began a layoff for the reduced work week period which is expected to end September 1.

All other departments at the plant will continue on the regular five-day week.

The announcement blamed a drop in the original equipment estimates by automobile manufacturers for the reduced work week and said its adoption would minimize the effect on production personnel and eliminate the need for large-scale layoffs.

—Toronto Globe and Mail

—This isn't the kind of 4-day week Technocracy has ready for you. It'll be full pay. (The equivalent of $500 per week.)

PEIPING TRADE 'NECESSITY'

TOKYO—Japanese Foreign Minister Fujiyama said recently Japan is seeking to expand trade with Communist China as a matter of "economic necessity."

—Associated Press

—We build up our allies, then they have to trade with our enemies because our economy cannot absorb their production.

ACTION URGED TO CURB $28 BILLION TOLL OF CRIME

A combined Federal, state and local onslaught on the mounting toll of crime was urged by Senator Alexander Wiley (Rep., Wis.).

Wiley cited an estimate by Aaron Kohn, president of the National Association of Citizens Crime Comissions that "serious crime in our land is diverting no less than $28 billion a year from the national economy, and is infiltrating a wide degree of activities." Kohn made that estimate—as previously reported in "Labor"—before the Washington Criminal Justice Association.

"I ask my colleagues to think what an enormous amount of tax revenue the Federal government must be losing because of underworld evasion of its fair share of taxes," Wiley declared.

"I ask my colleagues to think of the implications of underworld infiltration of legitimate business."

Wiley lauded current congressional investigations and the probes being made in some states.

"Obviously, infinitely more," he said, "must be done to clean up conditions of crime in this country. I hope that states and localities will recognize their responsibilities and proceed full-speed on investigations to clean up their own areas."

—Labor

—Crime is nothing more than an extreme expression of business practice.

FOUR-DAY WEEK COMING

DETROIT—Michigan Gov. G. Mennen Williams says he has "no doubts" that the four-day work week is coming "if that is what the people want."

"The ingenuity of management and the know-how of labor, plus the scientific developments of automation, will make possible the four-day work week," he said.

The governor did not venture a guess as to when it would come.

Walter P. Reuther, president of the United Auto Workers, has listed the four-day work week—with no pay reduction—as one of the goals of his union.

—With Technocracy's Program a 16-hour week has been possible for 23 years.

BE MODERN OR DIE, TEXTILE FIRMS TOLD

NEW YORK—Textile mills, if they expect to stay in business, must ruthlessly eliminate obsolescent equipment.

This is the conclusion of a study on "profit life" of textile machinery recently completed in the U. S. by the American Textile Machinery Association.

The report said technological development of mill equipment has accelerated in the last few years to such a degree that a mill that falls behind in the race quickly becomes noncompetitive.

It is claimed that a textile plant equipped with fully modern machinery obtains a 50 per cent increase in man-hour productivity, compared with the productive rates 10 years ago.

The U. S. study, carried out in co-operation with the American Cotton Manufacturers Institute, was intended to define realistic depreciation rates on modern capital equipment.

The report stressed the profit life concept, and said that when a machine has become obsolete from the standpoint of comparable productive efficiency and payroll savings, its profit life is over.

And, it added, when a machine has outlived its profit life, it becomes an encumbrance to a mill's financial position.

Multiple shift operation is referred to as a "built-in" characteristic of the U. S. textile industry. Textile machinery now is operated 6,000 hours a year, compared with 2,000 hours annually 20 years ago. The rate of use of capital equipment vitally affects its useful life span.

Development of textile machinery during the last 20 years has resulted in a high degree of automation, increased speeds, greater flexibility, and more productive capacity per machine unit.

Builders of textile machinery in the U. S. have boosted research and development expenditures by 200 per cent since the end of the Second World War.

Because of the accelerated pace of machine development, the necessity has been increased for proper and early recognition of equipment obsolescence on the part of mill operators, the study said.

—Toronto Globe and Mail

ARMY TO CUT DRAFT, RELEASE MEN

WASHINGTON—The Army says its future draft calls will be cut, and a number of officers and enlisted men released from service within the next six months.

The announcement followed an administration decision to reduce by 100,000 the 2,800,000 authorized strength of the armed forces. The Army's share of the reduction totals 44,470. The Army said 2,000 commissioned officers and an unspecified number of enlisted men would be released before the end of the year.

—Associated Press

UNION OFFICIAL DISCUSSES AUTOMATION AT U WORKSHOP

Automation can bring either economic and social disaster or abundance to the United States, educators attending the third annual Economic Education Workshop at the University of Washington were told.

Kenneth Thornbury, Denver, research-and-education director for the Oil Chemical and Atomic Workers International Union, said:

"Increasing purchasing power must be maintained because automation contributes nothing to the distribution of goods."

The union official proposed higher minimum wages among groups with the biggest propensity to consume, increased unemployment benefits and strengthening of collective bargaining.

Thornbury also suggested federal action if other measures fail to bring about a shorter work week and a federal study of the impact of automation.

VIET-NAM GETS MORE U. S. AID THAN OHIO

WASHINGTON—Congress spent more money helping people in Viet-Nam last year, some $192,000,000, than it did helping people in Ohio ($169,000,000) or Michigan ($157,000,000).

Economic aid for Korea ($211,000,000) almost matched federal aid for Illinois ($213,000,000).

More United States dollars went into the domestic economy of Pakistan ($66,000,000) than went into West Virginia ($63,000,000) or Maryland ($59,000,000).

In the fiscal year 1956, payments totaling $5,100,000,000 went to various states, compared to payments of $1,600,000,000 in economic aid to 63 foreign countries. This does not include military aid to 38 countries, which amounted to another $2,600,000,000.

When Gov. John Davis Lodge of Connecticut became ambassador to Spain, he almost doubled the volume of federal aid he supervises. Connecticut received $46,800,000 in federal aid in 1956, while Spain received $88,000,000.

—Chicago Daily News Service

PENTAGON CUTS SPENDING RATE

Reduces Manpower, Weapons Output for Savings

WASHINGTON—Defense Secretary Wilson said recently that unless runaway defense spending is halted at $38,000,000,000 a year, the federal treasury will run into the red by Christmas.

Wilson told a Pentagon news conference that he has taken steps to roll back the military spending rate by $2,200,000,000 from the $40,200,000,000 rate of the last six months. He said that in addition to manpower cuts, cancellation of defense orders and slowdown of weapons output which have accounted for approximately one-half of the savings goal, there will be more "bad news" for defense contractors and the defense department.

Bombarded by questions about the reason for the Eisenhower administration's decision to scale down the defense budget after it had already been approved by the White House and submitted to Congress, Wilson said that "apparently the temper of the country is to cut the budget." He said Congress is reflecting the demands of the taxpayers to reduce the heavy burden of military programs.

Wilson said that defense officials did not appreciate the sharp rise in defense costs until last March or April. Despite economy measures taken at that time, he said, "all the things we did didn't stop the increase."

—Spokesman-Review

TECHNOCRACY IN THE FIELD

The Members of Technocracy apply their efforts in various ways to bring to the attention of all North Americans the significance of the present social trends and the need for a technological solution to the problems which arise out of them. They realize that only through their activities and efforts is the public made aware of Technocracy's Program.

This car is driven daily to work and about the city at all times carrying the symbol of Technocracy, the Monad, on its doors. Then, during special occasions is equipped with a billboard that acquaints the public with the news of a public lecture. Techphoto by Kellogg.

Education Through a Symbol

The majority of individuals who know about the existence of Technocracy have become aware of it through one or more of several types of symbolization used by Technocracy Inc. in conjunction with its research-educational Program.

Every day Official Gray Cars of Technocracy Inc. circulate through communities of North America, carrying Members of Technocracy back and forth to work and on other routine business. Individuals see them and think of the word 'Technocracy.' This does not give such individuals an understanding of Technocracy. But their seeing a Technocracy Gray Car may stimulate enough curiosity to get information on Technocracy afterwards.

The great importance of symbols, such as a car painted a certain color and carrying a certain symbol, will be appreciated when we realize that symbols are the basis for the communication of intelligence from one individual to another. If we could not entertain symbols of things in our intellects, there would be no foundation for the growth of knowledge. And, no doubt, today we would be existing under conditions even more crude than the cavemen did, if we existed at all.

Technocracy has found that its Official Gray Cars are the most highly effective and least expensive of ways to acquaint the general public with the existence of its Organization.

As Technocracy grows in the consciousness of the public, a significant factor behind this growth will be a steady increase in the number of private cars being painted Technocracy Gray and displaying the Monad Symbol of Technocracy.

For those who may wonder what they might do to further Technocracy, we offer this suggestion: Join Technocracy and show others the answer to North America's growing problems by getting an Official Technocracy Gray paint job!

The Lumber of The Future

IN SPITE of its once heavy cover of forests, the Continent of North America is now running low on saw-timber; and high quality lumber is becoming a real scarcity item. All former grades of lumber have been upgraded on the market. What used to be classed as No. 2 is now No. 1, and what used to be No. 1 is now almost unobtainable, being sold as a fancy grade at a fancy price.

The 'sustained yield' program, being preached particularly by the large lumber companies of the Northwest, is a farce, more notable for the fancy juggling of figures than the production of needed timber. The bare fact is, old fashioned lumber as we have known it, is gradually disappearing from the American scene, blighted by the political and business administrations of the Price System.

This does not mean, however, that man must sit and twiddle his thumbs for some 200 years while a new crop of timber grows to maturity. Technological man is too ingenious for that; besides, the urgency is too great. The technologist goes to work in the face of adversity to provide new things to replace the old; and usually the new things turn out to be superior to those they supersede. Thus, we can anticipate replacements for lumber which are improvements over the natural woods.

The first great improvement over natural lumber came with the cross-laminated plywood. With plywood, a superior product can be made from mediocre timber. Also, it is not limited in width to the diameter of the tree stems used for its manufacture, as lumber is. Further, it has strength in all directions, and it is less subject to warpage. But, still, large, straight trees are required for high quality plywood. The best grades are becoming more difficult to obtain, while the plies of the average grades are appearing with more knots and knot-holes in them.

Various substitutes for lumber have been tried, ranging from plasterboard [consisting of a layer of plaster sandwiched between two sheets of paper] to hard compressed board known as 'masonite,' and embracing such materials as pressed paper [homosote] and fiber-boards made from bagasse [celotex]. The principal disadvantages of certain of these are their weakness under stress and their lack of resistance to water.

Another ingenious and promising replacement for lumber, known in principle at least for many years, involves the fragmenting of wood into small pieces—chips, shreds, sawdust, etc.—then bonding them together under high pressure into sheets or other forms. Sheets of material made in this way can be handled by the carpenter much as wood is handled; and they have certain advantages not found in lumber. Sheets can be made of any desired dimension — length, width, thickness. They are stronger than similar panels of wood; and they are not subject to warpage as is natural lumber. They do not require large trees for their production; they can be made from scraps, including bark, twigs, roots, sawdust, and wood fragments. With the addition of special chemicals at the time of compression, this material can be made fire-resistant or it can be made as hard as stone.

As natural lumber continues to become scarcer, we can anticipate that the 'lumber' of the future will be processed from plant materials which would not otherwise be suitable for construction materials. This synthetic lumber is not limited in width or length; if desired, it can be made into sheets twenty feet wide and a hundred feet long, or larger, and the thickness can be varied through a wide range of measurements to suit the demand. It can be given strength, durability, and hardness not found in the natural wood. But, like wood, it can be easily worked into any desired shape.

As man turns from superstition and philosophy to science and technology for his direction, his way of life is made easier and more abundant, and he lives much longer. We cannot predict in detail what the future will bring in the way of new materials and techniques; but we do know that, through science and technology, man will be provided for, in some manner, as long as he chooses to survive upon this planet.

—Techno Critic

The 'Spirit' of The Constitution

Document Framed for An Agrarian Society Can Meet in 'Spirit' Only the Complex Problems of the Power Age

THERE was a time in American history, and still is in local areas, when one of the principal popular pastimes was arguing about the Bible. These discussions were of the nature of a game in which one contestant stated some proposition and then quoted the appropriate Scripture to prove it. The other contestant dissented strongly from the proposition as stated, and proceeded to disprove it by quoting some other equally authoritative but completely contradictory Scripture. The fundamental premise upon which the validity of this game depended, and which was accepted implicitly by all parties to the discussion, was that all portions of the Bible were strictly and literally correct and not to be questioned.

This 'literal infallibility' clause led to so many absurdities and contradictions to everyday physical fact, that there arose a reform school composed of those who insisted that the game could be played with much more subtlety and sophistication if the 'literal infallibility' clause were removed from the basic premise and a new clause adopted stating that it was the 'spirit' rather than the 'letter' of the Scriptures which was infallible. The game as played with this latter variation was infinitely more flexible and varied than its predecessor, for it then permitted each contestant to decide for himself just what the 'spirit' in the case might be.

THE GAME OF QUOTING

If anyone questioned or refused to accept the fundamental premise, in either its primitive or revised form, upon which the validity of the game depended, the game then was seen to be merely a childish and relatively harmless pastime, having no more significance than any other equally childish pastime.

Gradually it became customary for the better informed to refuse to accept the basic premise of the Scripture-quoting game, and to look with some disdain upon those who still insisted upon playing it. The result was that the game gradually lost prestige and passed out of vogue.

Recently, however, it has been succeeded by an exactly analogous game played by the same rules except that the Constitution has been substituted for the Bible, and the argument centers around whether or not any Federal activity is in accordance with or contrary to the Federal Constitution. Just as in the case of the Bible, the basic premise upon which the validity of the whole discussion rests is the infallibility of the Constitution for meeting any conceivable social needs that may arise in the United States at any time in the indefinite future. But since, just as in the case of the Bible, a 'literal infallibility' clause leads to too many obvious and immediate contradictions, it has been found necessary, in order not to have the game disrupted prematurely, to substitute the 'spirit' for the 'letter' in the basic premise. With this substitution the fundamental premise now reads: It is entirely within the spirit of the Constitution of the United States for the Federal Government to take whatever action it may deem necessary to meet any present or future social emergency that may arise in the United States.

Granting this premise, the game then consists of some one's saying that some action or other is entirely in accordance with the spirit of the Constitution, and then invoking this 'spirit' along with some of the spirits of the founding fathers to prove the point. The opposition then makes its rejoinder by calling upon its particular set of pet 'spirits' to prove the converse to be true, and so on **ad nauseum.**

As compared with the game of Constitution Quoting, the game of Bible Quoting was relatively primitive and naive, for the latter persisted largely as a pure sport for sport's sake, in that none of the players were pecuniarily rewarded for their efforts. Just as in other sports where it has long since been learned that, properly managed, baseball, football, wrestling, and fist-fighting may be made highly remunerative regardless of who wins or loses the bout, the game of Constitution Quoting has long since left the sand-lots and entered the Big League stage as one of the greatest and most remunerative of our national spectacles—the Big League teams being composed of the most facile Constitution quoters that can be found, with a constant stream of new recruits coming up from the sand-lot teams throughout the land. Also, as with baseball or prize fighting, it is a matter of comparative indifference to the contestants themselves who wins or loses, since both the winning and the losing teams are rewarded handsomely **provided only that the game itself goes on.**

THE PERTINENT QUESTION

Just as in the case of the Bible, the game of Constitution Quoting depends for its validity upon neither side, and least of all the paying customer, ever questioning the fundamental premise For what would happen to such a game should the question be asked, 'What can any document drawn up by a group of relatively ignorant politicians, farmers, soldiers, petty shopkeepers, and userers, representing thirteen small colonies of villages and farms along the Atlantic Coast, have to do with the problems of operation of a social complex extending from the Atlantic to the Pacific Coast, with a population of 150 million people depending upon the unceasing operation of over one billion horsepower of prime movers for the production of their daily bread? [Ed. Note: This article was written in March, 1936.] And yet the only question particularly pertinent at the moment is this.

If, on the other hand, one directs his attention away from the national pastime of Constitution Quoting and considers the social problems themselves, he finds them to be, though somewhat complex in detail, quite fundamentally simple as a whole. The problem is essentially one of the design and operation of a mechanism.

It is, accordingly, not amiss to pause and consider the fundamentals of the design in any mechanism. Suppose for example that one is designing a vacuum tube amplifier. The first question that is asked is what is it expected to do when it is finished? Over what range of frequencies is it to amplify, how many decibels gain is it to have, and what is to be its noise level? A next question follows, and that is, what are the elements of design that will satisfy the above performance specifications? And last, what are the available materials?

With these questions asked and answered, the designer is now ready to proceed with the individual details, each of which must satisfy the rigid conditions that [1] the material to be used must be available, and [2] the final performance specifications must be satisfied.

In an exactly similar manner one may approach the social mechanism and ask what it is we wish it to do. What shall we specify as the operating characteristics we wish to be met? Only a few will suffice as examples. Suppose we drop all the moralistic cant about social justice and specify instead that we wish the social mechanism to so perform as to maintain the highest standard of public health obtainable in the light of modern medical science. Suppose we specify further that we want the social mechanism to produce the highest per capita physical standard of living at the least unnecessary expenditure of human labor, and with a minimum wastage [or the highest efficiency of conversion] of non-replaceable natural resources.

DETERMINING THE 'MUSTS'

From such performance specifications as these, and with an inventory of available resources, equipment, and manpower, the designer then proceeds to determine what the details of the design **must** be if the specified performance is to be obtained.

If, for instance, the highest possible standard of public health is to be obtained, adequate medical and hospital facilities must be available to every member of the population. Since public health is a function of nutrition, of the hours and conditions of work, and of one's habitation and facilities for leisure and recreation, it follows that in order for the standard of public health to attain a maximum, the food of every member of the population must be the best, the living conditions must be sanitary, the hours of labor must be short enough, and the conditions of work such that physiological injury will not result. Furthermore, adequate recreation facilities for the whole population must be available.

If the highest physical standard of living is to be obtained with the least unnecessary expenditure of human effort and a minimum wastage of non-replaceable natural resources, it follows that industrial production must be set and maintained at an arbitrary high level, that the most automatic processes must be used, and that all processes must operate at the highest thermodynamic efficiency obtainable. It also follows that the products of such industrial activity must be distributed to each member of the society individually, irrespective of whether he happens to work or not.

Further requirements following from these performance specifications are that the tempo and magnitude of our industrial operations must be increased, not decreased, and that such increase carry with it the necessity of synchronization and coordination of all the parts of the social mechanism if the whole is to be maintained in a state of smooth and orderly operation, rather than one characterized by violent oscillations. It follows, therefore, that the entire social mechanism must be manned not by numerous petty rival organizations, each striving to survive at the expense of the rest, but rather by a single coordinated organization built along the lines of the functions that must be performed.

It also follows — since human labor is, under such circumstances, a **diminishing** quantity in the presence of an **increasing** production, and since continued smooth operation can only be maintained provided the products are distributed for consumption at the rate they are produced — that a mechanism of distribution in no way dependent upon human hours of labor must be instituted. More production, rather than less, plenty rather than scarcity, must be the fundamental theme.

Since a high-energy social mechanism necessarily involves a specification of function, and since the requirements in each particular function are of necessity known to at most only a small fraction of the total population, it follows that all theories of democracy are inadequate and obsolete for the control and operation of such a mechanism. It is a significant fact that no ship or power house is ever operated by democratic procedure.

Since, likewise, all money in whatever form is a common denominator of **value,** and since **value** requires scarcity [all values go to pieces in the presence of plenty — hence the hog-killing and crop-reducing programs of the Government] it follows that all systems of money as a mechanism of distribution break down completely or become useless in the presence of abundance. Hence, if abundance is to be the end-product of our social operation as specified in our design criterion, it follows that a non-monetary mechanism of distribution must be provided which will distribute the goods and services at a rate essentially equal to the rate of production, and quite independently of any value criteria of the services rendered by each individual.

CONTRARY TO CONSTITUTION

But, with a non-political, non-democratic social structure such as is required if the social mechanism is even to approach the operating standards we have specified, and with a non-monetary mechanism of distribution, not only would the Federal Government, along with the thousands of state, county, and local political governments, no longer exist, but neither would those purely pecuniary activities [as distinguished from industrial activities] known as business, banking, insurance, trade, and commerce, together with the principal services of the legal profession, be found necessary.

Not even the wildest of the Constitution quoters would dare suggest, however, that it is in accordance with the spirit of the Constitution to abolish political government and democratic procedure **in toto,** and to dispense with that common denominator of all scarcity — money. One is, therefore, obliged to conclude that it is contrary to the spirit of the Constitution of the United States [and, incidentally, the same is true of the code of ethics of the American Medical Association] for there to be maintained a high standard of public health. It is unconstitutional to do those things necessary to conserve our non-replaceable national resources; it is unconstitutional to give every man a job, an adequate house and sufficient food and clothing; it is unconstitutional to give every child an opportunity for a higher educational training in accordance with his inherent ability; in short, it is contrary to the spirit of the Constitution of the United States to do any of those things necessary to operate a social mechanism involving over one billion horsepower of prime movers in such a manner as to result in even a modicum of economic security to the citizens thereof.

And still the game of Constitution Quoting goes on.

—M. King Hubbert

(Reprinted from A-6 issue, TECHNOCRACY Magazine, by permission of Continental Headquarters, Technocracy, Inc.)

Oil and Oily Words

THE NUMBER of drillings for oil during 1957 in the United States has fallen below expectations, and many oily words are being issued to explain the cause. Among the fictitious explanations are these: Too much oil is being imported, which depresses values at home and reduces the incentive to produce. The government controls of certain oil-producing states do not allow enough production per well to make operation economically feasible. The high cost of drilling makes the expense of exploration and extension wells prohibitive.

The last of these explanations is the only one that has any validity, then only as a secondary matter. We can be sure, if there were oil or even a reasonable prospect of oil, there would be drilling. The real reason that drilling has not come up to expectations is that oil just isn't being found in large enough quantities to pay the costs of finding and extracting it. That time is arriving on this Continent [which the oil promoters and their fellow travelers said would never arrive] when the United States is running short on oil.

One of History's Greatest Deceptions

The old argument that the more oil we used the more would be available already is being recognized as one of history's greatest deceptions. The sad part is that so many people were taken in by it in spite of its obvious absurdity; for, didn't the publicized statistics show that more reserves were being created each year than were being used up? The oil crowd pointed with jubilation to the reports that, although the use [squandering] of oil was greatly increased during World War II, we came out of the war with more 'reserves' than when we went in. There was even the implication that wars are a good means of building up one's oil supplies.

If there is such an 'excess' of foreign oil available for import as some of the publicity states, why all the rude maneuvering by the American oil merchants to squeeze the British out of the Middle East? And why the great eagerness of the American oil companies to worm their way into the new oil fields of French Africa?

Canadian production of oil has come up in recent years, along with a rapid expansion in drilling; but, so far, it is hardly enough to supply Canada's domestic needs. Imports of oil from Canada are not likely to be an early answer to America's dilemma. Nothing has been found in Canada [or in the United States, either] that will serve as a replacement for the once fabulous East Texas find.

Drilling Costs High

The off-shore drilling in the Gulf of Mexico is a high-cost and somewhat hazardous venture, in view of the great depths that the holes must go down and the violence of the storms that occasionally beset that part of the world [for example, little Audrey]. The cost of drilling a deep well under favorable conditions is in the vicinity of $12 per foot. Consequently, the yield from a 10,000-foot well must be high to cover the costs alone. Then, we must remember that for 'wildcat' drilling the strikes are only about one in ten tries. Even then, the yield is not always satisfactory.

The discovery of pools yielding a million barrels or more per well is becoming more infrequent, particularly considering the amount of drilling that is going on. A well which produces less than a hundred thousand barrels during its 'life' is hardly worthwhile, except perhaps as a 'tax loss.'

So, when the statistics on drillings in the United States show a decline in number of new wells, it can mean only one thing—oil is not being found in paying quantities. The present concern over the 'recalcitrance' of the American oil companies toward drilling the predicted number of wells may be merely an excuse-buildup for a later announcement that the 'reserves' are showing a decline.

In the oil game, any resemblance between the words handed out to the public and the facts is hardly more than coincidental.

—Techno Critic

U. S. BLAMED FOR OMAN INCIDENT

LONDON—America is to blame for the latest flareup in the Middle East, many Englishmen seem to think. 'If President Eisenhower had not supplied arms to King Saud, the present trouble in Oman would never have arisen,' says a letter to the editor of the London Daily Telegraph. A columnist in the same paper says, 'I hear a proposal that the United States should be known as the land of starry eyes and stripes.' This because of 'the State Department's suggestion that Saudi Arabia could not be using American arms to equip the Oman revolt because they had been supplied for other purposes '

All but the socialist papers are taking a critical view of the United States. The London Times, for instance, editorializes: 'The people in the best position to help in arresting this flow of arms are in the American government, for they still have influence at court in Saudi Arabia. Whoever is organizing the traffic, that is where the arms are coming from.'

Obviously, the Times, like many papers here, is annoyed at the hands-off attitude the United States is taking in an effort to avoid offending its new friend, King Saud. The Manchester Guardian thinks Secretary of States Dulles should feel 'abashed' for, when one has allies like King Saud—even for the best of anti-communist reasons—one must be prepared for unpleasantness. One argument against giving him arms is that he is most likely to use them for such purposes as 'blockading the Gulf of Aqaba and helping the Iman of Oman to rebel.'

The Guardian declares that long before oil was discovered it was the dynastic ambition of the Saudis to bring the whole of the Arabian peninsula under their sway. It adds that the American oil industry 'stands to benefit from any additional territory' over which Saud can establish his rule. It suggests, however, that the United States may learn, as Britain has, 'that the sands of Arabia are a treacherous foundation for a foreign policy.'

'WAR BABY' JOBS

A new employment study, published by the Public Affairs Institute, indicates that the national economy will have to grow fast in the next ten years to provide jobs for the growing number of workers. It said that in the early 1960s the labor force will be swelled greatly as the 'war babies' of the 1940s look for jobs. It suggested there are likely to be rising demands for a shorter work week or longer vacations as ways to meet the situation.

—New York Herald Tribune

ROAD-PLANNERS WORRY ABOUT HIGHER COSTS

A 40 per cent increase in construction costs for the nation's new 41,000-mile highway-building program looms as a major worry for federal planners.

It may mean partial curtailment of the program, higher taxes to support it, a long wait for its completion, or a little of each unless new financing is arranged.

"Congress is going to blow its own roof off next year when it gets the news," a highway expert said. "I hope I'm not around for the fall-out."

What started out as a projected $51,500,000,000 program to expand sharply federal-state highways over 13 years probably will end up as a much more expensive proposition, because of inflation.

The cost increases range from a reported 19 per cent boost in Massachusetts to 204 per cent in Nevada.

The gloomy report on higher costs follows a cheery message to Congress earlier this year from Secretary of Commerce Sinclair Weeks. He reported "extraordinary progress" in the launching of the program enacted into law in June, 1956. He made no mention of cost difficulties then.

Financing is by higher federal taxes on gasoline, diesel fuel, tires, trucks, busses, truck-trailers, a new tax on retread rubber and a new special tax on vehicles weighing more than 26,000 pounds.

—Seattle Times

SUPERMARKETS ADOPT 'ROBOT' STOREFRONTS

'Robot' storefronts, introduced during the year just ended, 'marked a real breakthrough' into a completely new phase of automatic merchandising, it was observed by Robert Z. Greene, president of Rowe Manufacturing Co., and a pioneer in the field.

First such round-the-clock vending installation was adopted by Grand Union Co. and built into the outer wall of its new East Paterson, N. J., headquarters store. It handles a total of 58 varieties of food ranging from bread and butter to cold cuts.

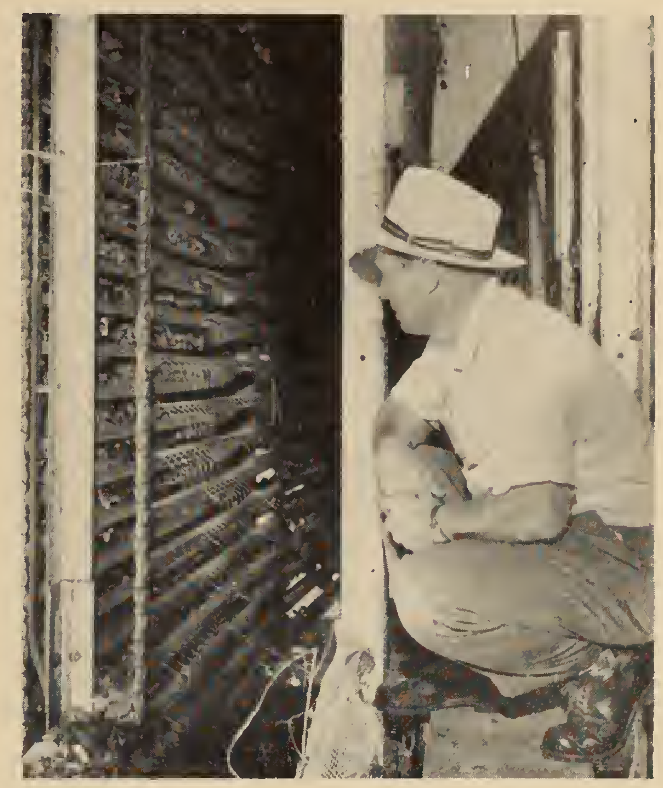
A number of other big food chains now are preparing to adopt the plan for their stores around the country, said Mr. Greene, who is also executive committee chairman of Automatic Canteen Co. of America.

Now on the drawing boards for 1957, he said, are vending machines that 'will take quick-frozen meals, cook them instantly, and serve them ready to eat.' Also many new types of vendors are designed for use in outer walls of retail stores, chiefly food chains.

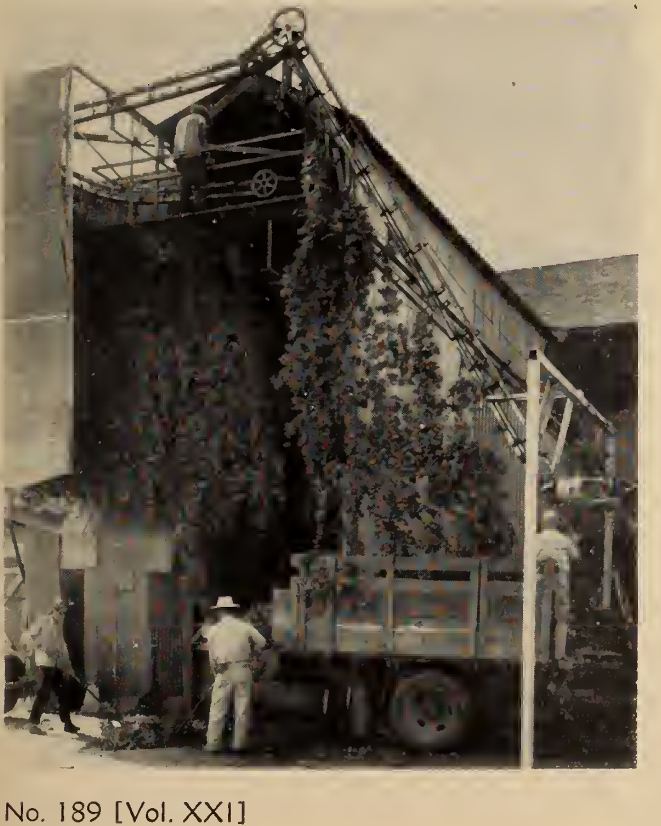
—New York World Telegram and Sun

—The 'almighty' quarter will come into its own but the checkers in markets will get to go home and stay when the 'coin' machine does the business.

Nimble Steel Fingers



In the western hop belt, extending from northern Sacramento Valley in California through Yakima, Washington, and the Snake River in Idaho, it took hundreds of pairs of nimble and untiring fingers to pluck the fragile paper-thin bloom from the towering hop vine. A labor force numbering in the thousands was needed each season to pick the crop. But during World War II when labor was scarce Florian Dauenhauer began to experiment with a mechanical hop picker. The first season the machine saved 65 percent of the harvesting cost. With improvements, the picker can now pick and clean over 56,000 pounds of hops in an 8-hour working day—with less than one percent waste, where it used to take 300 hand pickers about 30 days to pick and clean 40,000 pounds of hops, working from dawn to dusk—with 6 to 16 percent leaf and stem content.



The long hop vines are trucked to the picker. After each vine is hooked to the endless conveyor, it goes up and into the picker mechanism where steel fingers on vertical belts pluck the fragile hop buds. After the vines have been stripped, the hops, leaves, and stems are carried by a moving belt to a wire screen where leaves and stems are separated by fans and a vacuum process. In the picture Florian Dauenhauer watches the operation of the nimble steel fingers which operate on continuous belts. Pictures courtesy of Bethlehem Pacific Coast Steel Corp.

On a logging trail in the Cascade Mountains of western Washington between Tacoma and Morton where long train loads of logs are commonplace. As much as 134 loads or a total of 7672 tons, has been hauled by one locomotive. The normal tonnage handled by a Mallet engine is 15 loads or 950 tons. The locomotive pictured has handled 55 loads, or 3,575 tons, between these points. The prevailing grade between Morton and Divide is 2.3 percent.
Photo courtesy CHICAGO, MILWAUKEE, ST. PAUL and PACIFIC

INSTALLMENT DEBT HIGHER

Consumer installment debt registered its largest increase of the year during June. The gain amounted to $443 million compared to a $369 million increase for May and a $321 million gain in June, 1956. Total installment debt amounted to $32.3 billion at the end of June this year, nearly $2.3 billion or 8 percent higher than a year ago. Auto debt, which climbed by some $240 million accounted for a major portion of the rise in the total debt figure.

—Bank Bulletin

TECHNOCRACY

North America's Only Social Dynamic

WHAT?

Technocracy is the only North American social movement with a North American program which has become widespread on this Continent. It has no affiliation with any other organization, group or association either in America ro elsewhere. The basic unit of Technocracy is the chartered Section consisting of a minimum of 50 members and running up to several hundred. It is not a commercial organization or a political party; it has no financial subsidy or endowments and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are $9.00 which are paid by the member to his local Section. Members wear the chromium and vermilion insignia of Technocracy — the Monad, an ancient generic symbol signifying balance.

WHEN?

Technocracy originated in the winter of 1918-19 when Howard Scott formed a group of scientists, engineers and economists that became known in 1920 as the Technical Alliance—a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934 Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundation of the present Continent-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses, or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing!

WHERE?

There are units and members of Technocracy in almost every province in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces. Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the nearest Technocracy unit.

WHO?

Technocracy was built in America by Americans. It is composed of American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this Continent. Membership is open only to American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective office or active office in any political party.) Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher or housewife—so long as you are a patriotic American—you are welcome in Technocracy.

Pamphlets

Introduction to Technocracy	25c
America Must Show the Way	15c
Our Country Right or Wrong	15c
Continentalism—The Mandate of Survival	15c
Make Way for Social Change	15c
I Am the Price System, and The Culture of Abundance	15c
Man-Hours and Distribution	15c
The Energy Certificate	15c
Science versus Chaos	10c

SUBSCRIPTION ORDER

To: THE NORTHWEST TECHNOCRAT
2208 Eighth Avenue
Seattle 1, Washington

Enclosed herewith is $..................to cover................ .. subscription(s) to Technocracy's Magazines for .... years.

All Three Magazines, 12 months, 12 issues, $3.00. (All three publications are quarterlies, but so rotated that one appears each month.)

THE NORTHWEST TECHNOCRAT
TECHNOCRACY DIGEST
THE TECHNOCRAT

☐ This is a NEW subscription.

☐ This is a RENEWAL subscription.

Name..

Address..

City..............................Zone...........State..........................

(or) City..............................Province..........................

(Foreign rates, other than Canada, Mexico, and U. S. territories, 20% (60c) additional to above rates.)

Technocracy's Fundamental Objectives:

Consolidation of the entire Continent of North America, including Central America, the West Indies, and the northern tip of South America, into one Contiguous Social Unit, self-sufficient and self-contained.

A Technological Redesign and Reconstruction of the Entire Economic and Political Structure of the Area, Eliminating Politics, Business Enterprise, and Finance.

The Production and Distribution of Abundance to the Entire Population on a Balanced Load Basis, without Price, Penalty, or Special Favor.

A Very High Level of Individual Security, Freedom, Expression, Health, and Education; and a Maximum Security against Wars and Disasters.

A Long Term Social Program, involving the Optimum Conservation of Resources and a Maximal Development of the Physical Features and Energy Potential of the Area, with a Minimum of Dependence on the Minerals and Produce of the Rest of the World.

THE NORTHWEST Technocrat

JAN. '58

IN THIS ISSUE:

- Operation Cul-de-Sac
- The Fruits of Sabotage
- Rising Tempo of Rome's Demands
- 'Busted' Boom

No. 190 (Vol. XXII)

25¢

Sec. 3, R.D. 12247
TECHNOCRACY INC.
Seattle, Washington

We Learn Hard

IN THE PAST few weeks North Americans have suddenly heard a great deal about science and technology, and of their fundamental importance to the North American Continent. It is about time that we began to learn!

Nearly thirty-six years ago Howard Scott, Director-in-Chief of Technocracy Inc., was interviewed by Charles H. Wood, Associate Editor of the New York World, on the subject of the social effects and importance of technology on this Continent. During this interview, February 26, 1921, Mr. Scott outlined the key to the unique social problem before North America. The Technical Alliance, of which Mr. Scott was the Director, was composed of leading technical personnel of North America, and had, by 1921, developed a clear technological perspective of social and physical trends in this civilization. Mr. Scott's technological view of social affairs astonished Mr. Wood; for example, that North America's problem was really an engineering problem, not a political or financial one. Such astonishment was not justified by the facts that were available even thirty-six years ago; it was the measure of how far ahead of social thought Technocracy has always been in its view of social affairs. Time and events have vindicated Technocracy's position and original statements.

Accurate Picture

Technocracy Inc., since its inception as a Field Organization to carry on the research-educational program that was begun in the winter of 1918-19, has continued to convey an accurate picture of developing trends affecting this Continent. More than that, Technocracy Inc. has given the people of North America the organizing vehicle to do something about their problem.

The events taking place today that are setting many people spinning are not surprising to Technocracy. In order for this Continent to 'straighten up and fly right,' the conflict between the technology of North America and its Price System must be resolved in favor of a new social direction — a technological direction. We must come to the realization that politics and business enterprise are sabotaging the future of this Continent and appear to be bent upon destroying it altogether. The miserable failure of these factions to exercise direction for this society must now be painfully evident.

Technocracy is ready for action with the knowledge, the scientific design of social operations and the Organization to see North America through its deepening crisis. This is far more than we might have reason to expect in this social situation. The question now is: Do we have the intelligence and the guts to do anything about it?

—Editorial Board

COVER PICTURE

Cross Country Conveyor

Two-mile conveyor system moves gravel fill from hill to lake to build 13-mile road bed for Southern Pacific railway across the lake. In this picture, main-line conveyor No. 4 transfers to main-line conveyor No. 3 where straight course of the conveyor line is altered to make a left turn.

[See Page 19 for article]

(Photo courtesy of Hewitt-Robins, Inc.)

JANUARY 1958

THE NORTHWEST
Technocrat

OPERATION CUL - DE - SAC

The national policy of the United States, particularly over the past twenty years, has carried our country and its satellites down a one-way street ending in a blind alley. We cannot go ahead from here; we can only retreat and take a new road.

IN 1932, the people of the United States took the economic debacle of the Herbert Hoover Administration and dumped it into the laps of Franklin D. Roosevelt and the Democratic Party. The New Deal which followed proved to be nothing more than a device for buying time against any fundamental social change on the North American Continent — and, incidentally, for keeping the Democratic Administration in the seat of political power. Prices had become deflated and the people could be bought off cheaply. National credit in large blocs was not easy to come by. And the vision of the national leaders did not extend beyond the next election. The Great Depression with its extensive poverty continued to plague the country. World War II came along, but even this was not enough to bolster the American economy without direct American participation in the war. After two years, this participation came about in a seemingly fortuitous manner; and the Depression, as such, was over.

With an illegitimate Atlantic Charter in hand, Uncle Sam set out on a national course which was directly opposite to the 'ideals' specified in the alleged document. That same opposite course has been held to firmly by both the Truman Administration and the Eisenhower Administration. But it is a course which has no future; it must end in either catastrophe or a backout retreat.

An early backout would be the sensible course. But the American ego is such that its leaders will probably try for catastrophe first; in this instance, all-out war against the Soviet Union. This might properly be called the Over-the-Brink policy or the Dulles-Radford-Nixon Doctrine. It is the course for America which Pope Pius XII and the American Catholic hierarchy are frantically urging upon the country. It is a course which is compatible with the leadership of the AFL-CIO under George Meany. With another depression coming on, this course is becoming increasingly favored by Big Business and Party Politics. And, of course, the military brass, particularly the Airforce, is enthusiastic about it.

How did America get itself into such an untenable situation?

This predicament did not come about suddenly; rather, it is the culmination of a national policy and direction which have been in effect for more than a century, more particularly since World War I and acutely so since World War II. Actually, its beginnings can be traced back to the Founding Fathers, although they behaved only in keeping with the traditions and predations of their time. They can be accused of skulduggery, of course; that was inevitable from their background of social values. However, the radical concept of the 'Rise of the Common Man' forced them to make certain compromises, the results of which were at variance with the traditional concepts of tyranny. The unique circumstances on this Continent at the time permitted these compromisations to develop into a

The Northwest Technocrat is published quarterly by Section 3, R.D. 12247, Technocracy Inc., 2208 Eighth Avenue, Seattle 1, Washington. Entered as second class matter July 11, 1949, at the Post Office of Seattle, Washington, under the act of March 3, 1879. Subscription rate is $1.00 for four issues. Single copy 25 cents. Continental Headquarters of Technocracy Inc. are located at Rushland, Pennsylvania. Entire contents copyrighted 1957 by Section 3, R.D. 12247, Technocracy Inc.

pattern of anarchic private enterprise.

Thus, the first great national error was set on its course, and no administration or dominant ororganization has since seen fit to alter it or reverse it; and, now, it is developing into a stalemate. Private enterprise was permitted to control and operate the economy in an anarchic, laissez-faire manner under the dictum **Caveat Emptor**—let the buyer beware. In other words, business enterprise was turned loose to gyp, swindle, and loot the consumers of the area for all it could get. The politicians, being for the most part favored enterprisers in the system themselves, supported the policy of laissez-faire and even rigged the laws of the land in behalf of predatory business enterprise and against the consumer.

There were a few times when it looked as though the federal government might wake up to its potential responsibilities; such as when it took over the Armed Forces, the postoffice, the national forests and parks, and reclamation development, and when it encouraged the states and counties to take over the roadways and the schools. Of course, this was not done through vision or superior sense of social responsibility. It was done in order to give federal and state support to socially essential activities which, because of their nature, extent, and complexity, could not be handled profitably by private enterprise. It was, in effect, a device for charging the public at large with the cost of operating deficit enterprises. Even so, federal control—such as that of the postoffice and the Tennessee Valley Authority—has been so much more effective and economical, as compared to private enterprise control under similar circumstances, that it has been an embarrassment to both Big Business and Party Politics. There have been many howls and much screeching about 'bureaucratic inefficiency and waste'—and the government bureaus have been notoriously inefficient, partly because of the internal operating characteristics and incentives involved and partly because of the policies and personnel imposed on them by politics—yet, because they are one step removed from party politics and private enterprise, their works are outstandingly beneficial and economical compared to the works of private corporate enterprise.

Private Enterprise Gift

Such 'mistakes' of the federal government, as few and inadequate as they were, have been and are being 'corrected' by the Eisenhower-Nixon Administration, at least insofar as it can be done without creating too much of a stink. Many federal projects, which have cost the people billions of dollars in their development, are being turned over to private enterprise as gifts—now that they can be operated at a profit. Examples are: The Inland Waterways; synthetic rubber; hydro-electric power; off-shore oil; parcel post [in large part]; post exchanges; ordnance and ordnance development; military transport; atomic energy; naval shipbuilding; and exploitation of mineral reserves. Advance feelers have been made regarding the gift to private enterprise of the postoffice, national forests, public schools, highways, federal power and irrigation projects, and national park management. We also note that federal 'low-cost' housing, rural electrification, waterways transpor-

---

CONTENTS

No. 190 [Vol. XXII] January, 1958

	Page
We Learn Hard	2
Operation Cul-de-Sac	3
Have You Observed?	10
The Fruits of Sabotage	12
'Busted' Boom	15
Rising Tempo of Rome's Demands	16
Cross Country Conveyor	19
Technocracy in the Field	21
Developing Trends	25

EDITORIAL BOARD

Editor . . . . George Kellogg
Assistant Editors . . . . . Ruth Berge
Harry Briggs
Editorial Assistants . . . . Fred Botts
Edith Jess, Secretary
Business Manager . . . Rina Corcoran
Circulation Manager . . . Lucy L. Barnes

Printed in U.S.A. by volunteer and union
labor on Technocracy's own press

tation, and federal education are being effectively stymied — all to the advantage of private enterprise.

So, the first [or at least one of the first] major strategic blunder of the United States was that of permitting private enterprise to retain and expand control of public operations, which includes all production and service above the household level. Consequently, there has flourished a semi-anarchic enterprise economy since the beginning of this nation, with everyone out to gyp the consumer, the government, or whomever else could be gypped at a profit. Those who lacked the talent and wherewithal to organize a gyp racket had to sell his or her personal time, talent, and effort for whatever the market would bring or become associated as a satellite to someone who had an income from the economic system. Those who failed to make the grade, or lost out in the struggle, or became sick or disheartened, became the poor and despised.

Responsibility for the Individual

This laissez-faire economic attitude and intent of the national leaders gave rise to a second strategic blunder of the first magnitude—the failure of the society to assume responsibility for the individual. The development and welfare of the individual became an individual matter, and little attention was paid to how well or how poorly he made out; except that, if he showed signs of getting ahead of the game economically, the chiselers of the system, from beggars to merchants to moralists to tax-collectors to outlaws, would begin to hover around like vultures. Some effort was made to provide minimum subsistence to a portion of the most desperate cases of destitution, partly to keep them from dying in public places and partly as a basis for large-scale charity shakedowns.

The individual also found himself regulated by certain laws and social pressures, all of which were of a negative nature insofar as he himself was concerned. He was prevented from obtaining his economic benefits in certain ways, for instance, stealing, robbery, burglary, or fraud — unless, of course, he was willing to share at least 80 percent of it with the 'respectable' citizens of the community, in which case regulation of his activities became nominal. The worst offense of all, economically speaking, was to welch on the payoffs. Even big-shot operators found themselves suddenly in trouble with the authorities when they got greedy and started keeping out for themselves too big a percentage of the take . . . Further, one was subject to certain blue-law restrictions imposed by or in behalf of the dominant clerical interests of the community and nation. The severity of such regulations usually depended upon the degree of dominance of some particular religious sect or coalition, which varied from place to place.

Among other omissions, there has been no effective registration of the national citizenry; so, there is no official tabulation of who the citizens are, what, or where located. The decennial census is sloppy and only approximately reliable, as far as it goes. The annual income reports of individuals for tax purposes are incomplete and limited in scope. The registration of certain males in time of war for purposes of 'selective service' is reasonably complete, though limited in scope, for the included groups; and it is instituted only temporarily as an expediency measure. There are other half-hearted attempts to register the people, such as: registration for voting, filing of fingerprints with the FBI, registrations of births and deaths by the various states, registration for employment and relief, and registration of Armed Forces personnel. But what is lacking is a total registration of all citizens by the central government, with personal identification cards [or such] carried by all citizens. Consequently, the government has only partial information as to the number, categories, identification, and distribution of the national citizenry; and the citizen is lacking in official identification.

The import of this failure is that anarchy and anonymity of individuals are facilitated, and that the government has little reliable information on which to build a system of social responsibility for the individuals. What efforts are being made to provide for the minimum welfare of indigent citizens are sloppily administered by the several states or the counties. About all that the federal government does along this line is handle the funds for Social Security and government pensions.

No Guarantees

Virtually nothing is done to prepare the citizens for socially useful function nor to guarantee them economic security and welfare. Compulsory education for the juveniles is a gesture in that direction, but its motivation and execution are at least fifty percent sinister. That is, the schools are regarded as a means of keeping the children off the streets and out of the hair of their parents for much of the time; also, schooling keeps them from invading the labor market at an early age and adding to the already existing 'oversupply' of labor. In the grade and high schools, only a minimum effort is made to educate the youth in the realities of their environment, while an emphasis is placed on indoctrinating them in the superstitions and values of the status quo. Science and technical subjects, particularly, are minimized. In these respects, the parochial schools are worse than the public schools, with an emphasis on regimentation added.

If the individual is to achieve economic security and welfare, he must arrange for it and safeguard it himself. But if he adjusts to one of the prosaic patterns of life, shells out to the prescribed shakedowns, and de-emphasizes any yearning he may have for distinctive self-expression and initiative, the community will provide him with certain routine assists and protections. Such, however, are only by 'gentlemen's agreement' and strictly limited; also, they are subject to immediate withdrawal at any time he should step out of line or suffer major misfortune.

Americans have come to regard individual anarchy as synonymous with freedom and to confuse conformity with democracy. The American Way is supposed, somehow, to embrace both freedom and democracy. There is no official recognition of the potentialities of individual freedom of choice and action through disciplined organization of the citizenry and efficient operation of the physical mechanism. When the word 'discipline' is mentioned, the American will usually be reminded of some form of tyrannical regulation, such as that of the Armed Forces, religious orders, and penal institutions. He has difficulty of conceiving it as an efficient, short-cut process of getting the problems of life attended to so that he may have more free time and superior facilities to devote to activities of his own choosing.

Major Strategic Blunder

The failure to provide for the security, welfare, and freedom of the individual citizens has been a major strategic blunder of the United States federal government. This is one of the major factors which is forcing this country and Continent into a stalemate at this time.

Much of the backwardness of America is due to the type of social administration which we have adopted, namely administration by party politics. The administrative offices have been filled by people who catered to the popular fancies in their respective electoral districts. This has led to administration by low-grade compromisation with the local mores and prejudices catering to the economic rackets which provided the campaign funds, and appeasing specific interests which controlled large blocs of votes. Consequently, there has been a downgrading of centralized control and responsibility and a dispersal of authority to states, counties, and municipalities, as well as within the agencies of the government itself. The present 'rivalry between branches of the Armed Forces' is merely a symptom of this whole general malady.

Complete Reversal

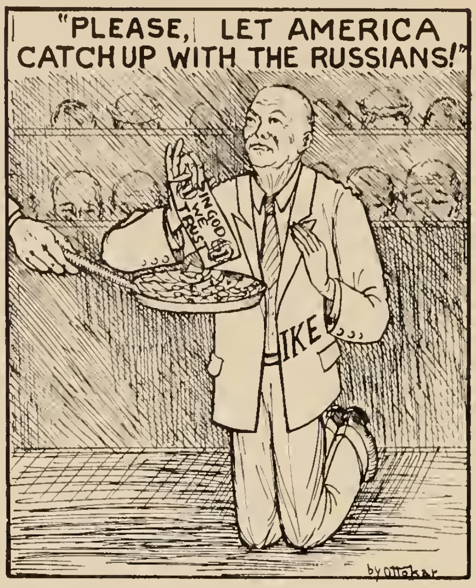
Before this nation and this Continent can experience an effective governance, there must be a reversal of the past. The numerous local governing bodies [more than 100,000 in the United States] must be brought under a central control and their functions integrated and coordinated on a Continental scale; and, eventually, most of them must be eliminated. For example, we must have a national educational system, with central administration as regards the establishment of facilities, outlining of curricula, training and support of personnel, and advancement of the students. All private and parochial schools would have to be abolished as elements of the general educational system. [If certain churches should desire to operate schools for children of their members, this would have to be done outside of the national educational system and not as a substitute for it.] Likewise, there must be a centralized national constabulary, empowered to maintain social order nationwide. This would mean the elimination of all local police forces, sheriffs' offices, state police and militia, and federal policing agencies as they now exist. One national constabulary, with local offices throughout the country, would provide the nation with the uniformity, efficiency, and integrity in police work which are so badly lacking in the present hodge-podge of local law enforcement agencies.

These are all general national situations which have a long background of development and which are leading us into a position of stalemate if not checkmate. But the most serious blunder of the moment is one of shorter duration, namely the Cold War, otherwise known as the Great Conspiracy. The specific background for this blunder goes back only to 1917. After the imperialistic ambitions of the Central Powers of Europe had been stymied by the blood and guns of Britain, France, Belgium, and Russia, the United States entered the war to protect investment values and contributed substantially to bringing about the final surrender of the Central Powers. As a consequence, the United States was 'feeling its oats' as an international power and proceeded to take an active hand in running world affairs.

One of America's first acts in this new role was to enter into the conspiracy to destroy the new Bolshevik regime in Russia. This failed in its immediate purpose, but was not abandoned as a national goal. Except for honoring and abetting the Cordon Sanitaire, we let this objective lie dormant for a while, concentrating our efforts on the establishment of an economic empire around the world via private investments, mainly in oil, minerals, and raw materials. It was also held in abeyance during World War II, while the Russians were fighting the Germans, although our official sympathies appeared to favor the Germans insofar as the Russian-German war was concerned. It was not until near the close of World War II, when President Roosevelt was in bad health, that the Conspiracy was reactivated. It took the form of preparing to accept the Germans [against whom we were still at war] as allies, then turning our forces, along with those of the other Western Allies, the Germans, and Catholic fascism in general, against the Russians. This phase of the Conspiracy was checkmated by the suddenness and forcefulness of the Russian advance, as well as by the war weariness of both our fascist allies and 'enemies,' to say nothing of the popular enthusiasm for peace in Britain, Canada, and the United States.

However, the Conspiracy was not abandoned. The Vatican, the Churchill Tories of Britain, and strong elements in American politics, the military, and Big Business favored an early war against the Soviet Union. The Cold War doctrine was put into operation. In 1945, the Vatican called for a crusade against Russia. In 1946, Winston Churchill, as a guest of Harry S. Truman, called for belligerent action. And, in 1947, Harry S. Truman himself was prevailed upon to voice a virtual declaration of war against Russia, known as the Truman Doctrine of encirclement and containment.

There was some difference of opinion as to whether the war should begin in Europe or Asia. The Korean War gave the Asia-first team, led by General MacArthur, its innings. After stalemate in Korea, the Europe-first crowd gained in favor; MacArthur was fired; and the Korean War was reluctantly brought to a close.


"PLEASE, LET AMERICA CATCHUP WITH THE RUSSIANS!"
IN GOD WE TRUST
IKE
by Ottokar

Following defeat of the Chiang Kai-shek regime, China was included along with Russia in our containment policy, and this phase of the policy is still in effect, reinforced with American commitments to go to war in defense of Chiang's precarious foothold on Taiwan.

The 1956 attempt to initiate a war in Europe, via Hungary, Poland, and East Germany, backfired; and the Cold War crowd has been howling with frustration ever since. This evidently was to be the beginning of the Eisenhower Crusade.

In the meantime, during and since World War II, the Russians have been forced by necessity to institute a program of education and production under central government direction; and this has turned out to be far more efficient than anything in effect in the West. As a result, the Russians have advanced ahead of the West in certain fields which count for the most at this time. Their education concentrated on science and engineering while ours concentrated on liberal arts, business administration, and law. Their productivity centered around heavy industry, power development, atomic energy, and military effectiveness, while our productivity spewed forth automotive monstrosities, white ware for the kitchens, atomic bombs, obsolescent military equipment, advertising displays, and a plethora of bric-a-brac. They have advanced their science while we have been stressing our piety and glamor. Now, we suddenly discover that we are no longer in a position to inflict massive destruction anywhere it may please us to do so.

Our whole Cold War propaganda has been based on the supposition that the Russians were going to attack the West, take over Europe, and attempt to invade North America. That shows how weird our strategic thinking has been. So long as our policy was based on that kind of assumptions, all the Russians had to do was sit it out and let us wither from frustration.

Thermo-nuclear Happy

It is now reported by the military that we have heavy bombers, loaded with thermonuclear weapons, in the air on daily 24-hour schedules from bases in Europe and elsewhere around the Asiatic Continent. How long can we keep that up without there being an incident to justify the cost and effort? The time will come when those planes will have to be grounded for one reason or another, then what? With intermediate-range missiles, the Russians are 'looking down the throats' of our European and African bases. On the Asiatic side, South Vietnam, the Philippines, Taiwan, Okinawa, and South Korea are untenable. With intercontinental missiles, our own strategic targets on this Continent are vulnerable.

In fact, the whole Cold War has become untenable. We have gotten ourselves into a cul-de-sac; and there is only one thing to do, back out and abandon our foolish position. If we don't do it through intelligent direction, we shall be forced to do it in other ways. For one thing, we will be forced to withdraw by default of our allies; for another, by popular opinion at home. Americans are psychologically unsuited for a situation in which they are the underdog in a scrap.

The only alternative to a strategic reversal of policy and attitude is an all-out holocaust — in which we stand a 'good' chance of getting annihilated as a people, as a nation, and as a culture. It will be little comfort to learn as we go down that the enemy was probably hurt too.

Thus, the Cold War is the immediate and most urgent course which we must reverse. But there are others which are equally dangerous or impossible for the long term.

One of these is our greedy consumption of the world's resources. Already, we are gobbling up over half of the world's mineral production; and, if our ballyhoo publications [such as Fortune magazine] provide any true indication of our program for the future, we shall be grabbing off some eighty percent of the world's essential minerals by 1975. Such 'vision' can be nothing less than a Madison Avenue dream or a Hollywood fantasy. Before 1975, we shall certainly be forced to retreat from that blind alley and learn to live within the productive output of this Continent. In fact, if we are not guided by superior strategic intelligence at an early date—considering that the rest of the world is rapidly expanding its demand for raw materials to supply its own industrial productivity—we shall be lucky to hold onto the resources of this Continent.

Technocracy long ago foresaw this development and prepared a program for the North American Continent to meet it and to prepare for the future. This was first done while the North American Continent was still the number one technological potential of the world and while there was still time to effect an orderly transition. The situation is now urgent and may soon become critical. Now, we have neither the advantage nor the time we had 25 years ago. We must view our present dilemma as an emergency, one that calls for immediate and drastic action.

The proposals that are pouring in and out of Washington, Paris, London, and Rome to meet the technological challenge of the Russians since the launching of the first Sputnik are woefully shortsighted and inadequate.

All in the Same Camp

The reactionaries and conservatives, in their hysteria, can voice only procedures which are outdated. But the liberals of America are of no help in this 'crisis' either, and they are not to be trusted. Many years ago, Technocracy realized that the liberal was hopeless as a pioneer of progress on this Continent; that, at the showdown, he could always be found fighting in the same ditch with the reactionary. Now, the liberals can think of nothing more suitable to the present situation than a frantic effort to catch up with the Russians in missiles and sputniks. We are given the sad spectacle of an Adlai Stevenson going over to the Dulles-Radford-Nixon camp to help with the resuscitation of NATO. In Britain, the former Labour leader, Clement Attlee, is sitting in the House of Lords.

All that the reactionaries, conservatives, and liberals can think of at this time is the spending of untold billions of dollars to try and overtake the Russians; but, in what, or how, or for what is not made very clear. Anyway, the magic word is 'science.' But insofar as they are concerned that is just another word for rocketry.

If it is action and quick results that the people of America want, Technocracy has the answer. It is not a new answer, but it is still the best there is; and it will cost nothing. That answer is Technocracy's well-known Program of Total Conscription. This Program would provide the quickest way of getting out of 'the fix we're in' and preparing for a new road ahead into an era of peace, abundance, and security. What is more, it is the surest way to out-compete the Russians in Continental progress.

—Wilton Ivie

NEED FOR ENGINEERS CITED

SAN FRANCISCO—The United States is turning out 25,000 engineers a year, but Russia graduates about twice that number, Clark Kerr, president-elect of the University of California, said recently.

Citing what he called an obvious American need to train more engineers, Kerr told a group of San Francisco engineers that the curriculum for trainees probably will have to be stretched to five years.

Kerr said the engineering student will get more scientific training in the future and will also need to spend more time on the humanities to equip him for responsible citizenship.

—Seattle Times

SPEED SURVEY

WASHINGTON—The Coast and Geodetic Survey recently announced that through use of an electronic marvel known as "Tellurometer" it has competed in fourteen days an Aleutian Island surveying job that normally would take four months.

The "Tellurometer" measures distances by radio waves between a master unit and a remote unit. Developed by scientists of the Union of South Africa, it was especially adaptable to conditions in the weather-bound Aleutian Islands.

Setting for the surveying job was barren Atka Island, far out in the Aleutian chain. In past years, some surveying parties have had to wait as long as thirty-four days for suitable weather.

Lt. Hal P. Demuth, who headed the surveying party, said it takes only forty-five minutes to set up the "Tellurometer," make observations and dismantle it. He said measurements can be made up to twenty miles under the right conditions, and that it would take ten men at least three weeks to measure the same distance accurately.

Godetic officials expect the device to play an important role in surveying for the nation's new interstate highway network.

—United Press

MY TWO CENTS WORTH

SOME TIME AGO I had my radio turned on but wasn't paying too much attention to what they were saying. They were just getting excited for the umpteenth time over the all new Lifeboy with twenty thousand filters which works twice as fast as aspirin to relieve congestion in the lower digestive track, or something like that. Then I noticed they were slipping in something that was different, something about the Russians shooting another sputnik up into space. Even that wasn't very exciting, because they already done that once before. But this time they said something about a little dog inside of the sputnik, so I stopped to listen. The dog's name was Laika and it was way up there in space whirling around and around the world faster than a bullet. How you Laika that? [Ha, ha! Joke.]

A lot of people was worried about what was going to happen to the dog. Everybody seems to be soft on dogs. Why, they even elected Mr. Nixon to be vice-president when he told a sob story about a little dog on television. A lot of people around here complained about the Russians sending up a live dog in their sputnik. But nobody seems to pay much attention to the thousands of dogs that get 'put out of the way' by the dog pounds, or the thousands of animals that get killed by hunters every year, or all the people who are tortured and killed by dictators. When our airplanes dropped those awful fire bombs on Japan and Korea and burned thousands of people to a crisp, we just clapped our hands and said 'goody.'

I don't think people would get so excited if the Russians just sent up a Hottentot, or an Arab girl, or an Indian kid in their next sputnik. Nobody seems to care much what happens to people like them. And if they would send up a communist, we would just say 'good riddance,' except he might spy on the United States while he's up there.

I think it would be a good idea to take everybody who wants to fight a war and send them up in sputniks and let them fight it out in upper space where they can't do any harm. The best part of it is, they haven't found any way to get the sputniks down, so that would really be good riddance.

—Ima Moron

Have You Observed?

. . . **Do you know** the magic word? You see it everywhere in the news and the ads. It is used as an eye-catcher in ads for real estate and automobiles, or to draw attention to almost any idea, related or not. Sputnik, the word, is scintillating through our vocabulary even as it flashes through the sky, and it marks the end and the beginning. Some reckon time as 'BS' and 'PS.' A ball weighing 180 pounds is of little interest until given a velocity of over 18,000 miles per hour, and then no one can ignore it.

Those 'dirty Russians' have no consideration for our swelled head! Don't they know we have arrogated to ourselves the position of leader in the scientific world? We, not they, have the brains, the education, the ingenuity, and the 'know-how.' The thing we don't **know** right now is **how** they made the thing stay up there when 'they haven't got the know-how' for it.

Make no mistake about it, the North American Continent has the scientific brains and the ingenuity, but science suffers from political control and scientists are not accorded proper social respect. The National Science Foundation has now advised, post-Sputnik, that more attention must be given to research in basic science.

Sputnik has provoked a mild apprehension among governmental bureaucrats, editors, and business men. But even that has not shaken them out of their complacency and their old ways of thinking. They still intend to play politics with it. Business sees it as causing the end of governmental economy. Businessmen and bankers abroad see it as causing the U. S. to loosen up with more funds for 'aid.'

The United States did not make a friend of Russia during or after World War II. If one cannot make friends, he should 'get thar fustest with the mostest efn he wants to be thar lostest.' The American people, over the past decade, have been subjected to such a barrage of propaganda, extolling the ignorance and general backwardness of the Russian people, that it was unsafe to believe anything one read or heard. No chance was missed to foster hatred and contempt for the USSR. What can we believe now? It is admitted that Russia leads in technology applied to weapons. Are they as far behind in consumer-goods and in agriculture as we have been asked to believe? So-called 'free enterprise' on the North American Continent is currently eating a large helping of crow.

. . . **'United we stand;** divided we fall,' is a quotation which is even more apt today than it was in 1860. It is grievous to see schism occurring between some states and the main body. Whether the issue is integration or the imposition of it, is difficult to discern. Some Southerners assert that integration would have occurred 'gradually' as old ways of thinking gave way to public opinion.

Segregation was a target of Red propaganda; hence political pressure to eradicate the sore spot. Perhaps the negro vote in non-Southern political districts and other political considerations have been factors in making integration a political issue. The result was hasty action, an attempt to legislate a solution to a wide-spread, deep-seated, social and economic problem affecting millions of people in an intensely emotional situation. Here, as in other times, politics was allowed to take precedence, when clearly, a logical, well considered, deliberate plan was indicated.

Technocracy Inc. does not wish to be allied with the extremists of either group. In the Technate, neither integration nor segregation will be valid because there will be no differentiation between the races, economically or socially. Every resident person not owing allegiance to some foreign power, shall share economic equality; his social standing shall be at whatever level his accomplishments place him in the give and take of life. But if three colored people wish to have beer and pretzels together, there will be no law to say that they must invite a white person, and vice versa.

The several states of the United States, together with the sovereign nations of the Continent have a common destiny if they are to survive at all, and they have no real friends on any other continent. Technocracy has often stated that the North American Continent is the prize loot of the world. There are those who would turn against us if a serious internal struggle should arise. Can we afford to let further political 'solutions' get us into crisis after crisis as they have done already, both at home and abroad?

Have you observed what a fast-moving world we are living in? Now we are in the rocket age; soon it will be the age of space travel. A little over a decade ago it was the atom bomb, later the hydrogen bomb, ushering in the age of atomic power. The ages are overlapping each other. Technological change is everywhere on the North American Continent, but social thinking is not keeping up with it.

Social change is taking place, but it is a function not of social thinking but of technological progress. Without social thinking, social consciousness lags so far behind technological change that the situation becomes unstable. Social change then may come with wide oscillations.

The past crises and depressions with their unhealthy recoveries secured by wars, war scares, defense spending and increased debt are only some of the symptoms of the instability. Have you observed? It's time to do some thinking!

—12247-1

Evolution of Science

'Science is the methodology of determining the most probable.' Copernicus, Galileo and Johannes Kepler, in their time, used this method to determine and measure astronomical phenomena that they observed. Without the ground-work laid down by these men [and others], in the face of indescribable persecution, present-day research into outer space would be nil. Seventeen eighty-three was the date of the ascension of the first balloon. The Wright Brothers flew their plane for the first time in 1903. From that date to this [1957] is a mere 54 years, but we have jet planes traveling faster than the speed of sound. The men and women who contributed to the development of all scientific advancements were of all races and creeds and spoke various languages—but the laws of thermodynamics are the same whether written in Chinese, Russian, or Sanskrit.

It is all too easy to lose sight of the fact that no one individual, no one race or nationality is responsible or can take all credit for any scientific development. Each new step has a background that dates back to the gropings that primitive man began in his attempts at explaining physical phenomena. It took many centuries of such trial-and-error groping to develop the alphabet and the numerical system. The simple problem of developing the decimal point in arithmetical calculations took man centuries and much controversy. [The 'traditions' of the past were always there to hamper and confuse. The label of 'heresy' has always been handily bandied about and applied to any individual or group whose ideas were contrary to those with vested interests in the status quo. The word, of course, has had many spellings—the most modern being 'communist' and 'egghead.']

Science Is Universal

The launching of the Russian satellite and the ICBM is the result of centuries of scientific investigation and application. We must not forget that it was science, as science, that organized the technology, and not Russians, as Russians. Science is universal and can be applied by anyone setting up the necessary standards for its application.

The launching of the satellite into 'outer' space has created consternation among many who have been led to believe [and we mean 'believe'] that America had a monopoly on science. But this fallacy may prove very costly in that we as Americans have not been informed or have refused to face the reality of the tremendous impact that science has on our economy.

Let's keep both feet on the ground with the understanding that science can solve social problems as well. We are confronted with abundance and the problem of its distribution will have to be solved by Americans.

Abundance is the result of the scientific method. We face disaster if we do not correct the imbalance by scientific distribution.

—Publications Committee, 8141-15
Reprinted from Techno-Hub

THE FRUITS OF SABOTAGE

For many years Technocracy has warned the people of North America that the arrogant disregard for basic social and physical trends, at home and abroad by the front men for the North American Price System would jeopardize the security and welfare of North America.

THOSE individuals who are possessed of some analytical ability must be getting mighty sick and tired of being bludgeoned with propaganda about missiles and satellites day after day from their Price System sources of 'information.' You would think, from the nature of the tripe that flows in great gobs from the pens and mouths of those in the world of journalism, that the one and only problem before these United States is to launch a bigger and better satellite or develop a more destructive missile than the Russians have devised. Even if tomorrow morning the U. S. succeeded in orbiting a ten-ton satellite, twenty times as big as the latest Russian accomplishment, on a long range basis the people of North America would have no reason to breathe a sigh of relief. In fact, our failure to keep pace with Russia in military technology is only symptomatic of the advanced stage of a social disease which infects this Continental area, the syphilization of the North American social structure by its Price System.

In less spectacular but more socially important ways than by beating the U. S. in the ballistic missile field, the Russians are acknowledged to be forging ahead of the U. S. While the social system of the United States has been making salesmen, the Russians have been making scientists. While the emphasis in Russia has been on science, the emphasis in the United States has been on business enterprise. Today we face the world with our tattered and shredded propaganda sheets on how to be a technological success through corporate enterprise and have to listen to the guffaws of millions of people around the world whom we have tried to influence but who never have appreciated the methods and practices of American business enterprise. But far worse than being made, as a people, the butt-end of a great joke by other countries is the disastrous effect of our poison on our own country and Continent.

The organized anarchy which we lay claim to as our civilization has chipped away at itself internally to the extent that, today, it is hardly able to sustain itself, not to mention progress, except into successive stages of decline.

It is most appropriate to point out that Technocracy Inc. has been stating since its inception more than twenty years ago that the central problem before North America is the conflict between science [and the requirement of scientific social operation] and the obsolete methods of the Price System. At an incalculable cost, which only now is becoming evident, politics and business have kept the Price System afloat for the past twenty years—years in which a new social system should have been born and flourishing. The measures which have been taken in the framework of the Price System to prevent the arrival of a technological social control in North America constitute the worst example of calculated sabotage against a social area in recorded history. At no time in history has so much been at stake for so many people.

A succession of arms programs and wars, which have proved to be useless, and were declared so by Technocracy before we became involved in them, gave temporary relief from the Depression. These moves to preserve the Price System have kept people fat, dumb and happy for the past few years. And though many of them knew better, today they are not above pleading ignorance. At any rate, all of us now are reaping the fruits of Price System sabotage and the social emergency that has been created.

Lack of Objective

Now that some of the arrogance has been knocked out of us by current events on the international scene, some people are giving pause to look at our social circumstances a little more objectively than in recent years. Outstanding is the total lack of a national objective of any kind. There is no social unity, and little national pride except in our bigness and in certain philosophic words, phrases and ideas that no longer apply in this Age of Science. These things aren't reason enough for being in a world that is moving as fast as this one. The cult of individualism, which we think we believe in, but which in fact we can't even practice, dominates the social scene, even though it is the direct antithesis of the social attitude required to survive and progress upward and forward in this scientific era.

We are finding that it was most unfortunate to allow reactionary minorities to intimidate and belittle those individuals who could appreciate and work with science; and to make science almost a dirty word to citizens of this Continent, especially the youngsters. It is too bad that the social consciousness of the average youth is at the moronic level of burning rubber from the tires of his 'hot rod' or listening to 'rock 'n' roll.' Among the older generations, it can't seem to be so smart any more to have 'sold out' to the Price System in an attempt to amass a few pieces of shoddy goods and an inferior dwelling, most of which aren't paid for now and probably will never be paid for in full. All of those hours in a semi-stupor before the television set don't seem to have been wisely spent either. The past critical years have been marked by a succession of mistakes, individual and national. They add up to an extremely high social price for this Continent. It's pretty hard to pin the responsibility for the sabotage of this civilization on any particular group of individuals. Too many people have welcomed it, and participated in it.

A Scientific Interest

If, today, we are to consider ourselves in scientific competition with the Soviet Union, we are in pretty sorry straits, for we are pitted against a people in whom a lively interest in science has been generated. These people are moving collectively to accomplish certain national objectives. According to reports, they seem to be getting a kick out of what they have done and are doing. What we think about their brand of politics couldn't matter less under the circumstances. On the other hand, we of North America are about as unorganized for any social objective as we can be and, furthermore, we are without any evident desire to get organized. Technocracy, for years, has been addressing with a telling effect only a minority of the citizens of this Continent. We are just beginning to emerge from a period of years when it didn't make the slightest difference to more than ninety-five percent of the population how correct an analysis one might present; people weren't interested. Nevertheless, Technocracy Inc. has built and maintained under the most difficult conditions for its type of thought a nucleus of personnel to whom nothing that is occurring on the North American scene is a surprise. What some people are becoming alarmed about now is 'old stuff' to Technocracy and Technocrats.

Arrogant Disregard

For many years Technocracy has warned the people of North America that the arrogant disregard for basic social and physical trends, at home and abroad by the front-men for the North American Price System would jeopardize the security and welfare of North America. In comment on international affairs more than twenty years ago, Howard Scott, Director in Chief of Technocracy Inc., told an audience in New York, and since then he has repeated it many times at public meetings across the Continent, that: 'If the United States, in the conduct of its foreign affairs, continues to be dominated by the policy of business expediency, the day will come in the next three decades when the United States will be compelled to eat international dead crow served with Russian dressing and Tartar sauce.' We are now being forced to eat a liberal serving of this international dead crow. It doesn't taste very good.

Collectively, North Americans have looked upon their great land area, which they have regarded as their birthright, only as a wonderful opportunity to exploit for their personal benefit. This idea has been hammered into them by the educational system, politics, business, and numberless other sources from the time they were first able to read and understand words. For a time this Continent was able to tolerate such a social attitude, despite the damage that it inflicted upon natural resources. A loose political control favored and rewarded the most adept chiselers. Graced with a great wealth of natural resources and an accommodating climate for the white man, North America has fostered the growth of a mighty industrial civilization which grew at a tremendous rate with the application of technology by technically trained personnel. The rate of growth soon rendered obsolete the social attitude and the Price System of the Continent. But that occurrence has not stopped us from continuing to use the old system. Therein lies the crucial conflict. It is a battle to the death for one or the other. No one can say with absolute certainty what the final outcome will be. We do know that we live by science and technology; therefore, the decision of each North American had better be in favor of these social forces. Our utter failure, as a people, to recognize the problem and to act is pushing us into the category of a second-class power, with prospect of much worse social consequences to come, unless there is a widespread revival of social consciousness.

Since the North American Continent is without a governing mechanism that is capable of supplying the leadership and direction required to guide us out of the present mess, the question arises: What can anyone else do about it? This is a natural question because we are conditioned to delegate our social responsibility to a politician. The answer is: Take that responsibility back and organize with Technocracy Inc. to do the job Look at this social situation as though your life depended upon your own understanding of it and what to do about it. One would not exaggerate his level of responsibility by regarding it in that light.

While Technocracy Inc. is not designed to be a governing mechanism, Technocracy, the method, is so designed. Technocracy, the method, is what Technocracy Inc. is presenting to the people of North America. Technocracy Inc. is the organizing vehicle for Technocracy. When we consider that forty years of engineering and scientific research have gone into Technocracy, we begin to understand why Technocracy is qualified to discuss comprehensively, and with the correct insight, problems before North America. The thing that we are attempting to make clear is that we North Americans have a course of action to take to solve our problems. Technocracy is born of science, it is being presented in an organized way, and its Organization has the leadership to see us through social change on this Continent. What more do we want?

It is abundantly clear that no conventional source of social action is going to get anywhere in dealing with the problems before us, and that for every hour longer that we rely upon somebody other than ourselves to shoulder our responsibility, to that extent our chances of survival are further imperiled.

At some point in time in the future, probably all too soon, the mass of people of this Continent is going to be jolted into action by the pressure of events. When this mass movement begins, it had better be directed by an organization that knows the score. As conditions become more intolerable, a social ferment will develop, producing the mass movement which will be largely devoid of intelligent understanding. Technocracy Inc., it so happens, is the one and only Organization in which the planning and foresight have been invested to make it competent to direct a mass movement for social change on this Continent. No political administration in North America will dare to deny social change.

At the present time, Technocracy Inc. addresses itself to the function of informing and organizing every intelligent and able-bodied citizen residing in North America in preparation for the greatest social change in recorded history. The framework of personnel presently being built constitutes the vanguard in the movement for social change. The stronger and better trained it is, the easier will be the change.

Given a reasonably orderly transition into a technological social system, then the task of building this civilization can be started in earnest. Then North Americans will develop a morale from realization of North American objectives which will exceed anything that the world has ever seen. Our natural advantages of a sufficiently developed technology to produce and distribute an abundance of goods and services to all North Americans without price; of geography and natural resources, and of an essentially homogenous population, will function with our technical proficiency to place North America in a position of true eminence in the eyes of the world. By solving our own problems with Technocracy, North Americans shall have no rival and no competition. This Continent will enjoy the leadership and everlasting gratitude of mankind from the example that we set.

—Harry Briggs, 12247-1

SYSTEM KEEPS BOX CAR TAB

SAN FRANCISCO—A new electronic computer system to help mastermind distribution of empty box cars to shippers along its lines is being used by the Southern Pacific Railway.

James W. Corbett, operating vice-president, said the system will step up utilization of the existing box car supply and make it easier to meet demands of business and industry.

The system—possible forerunner of things to come for all U. S. railroads—is the product of three years of operations research by Southern Pacific and the Stanford Research Institute.

The new intelligence system each day will sift more than 70,000 individual car records, evaluate car-handling efficiency, forecast traffic trends and advise the railroad's officer in charge of car distribution where to move empties to maintain optimum car supply.

Basically, it consists of a compex of high-speed data-processing machines geared to an electronic computer in San Francisco.

—Newark Sunday News

'BUSTED' BOOM

Recent layoffs as a result of shifting of defense orders and slowdowns in civilian production are causing some worry in certain local communities and labor unions. Part-time work and below-capacity operations are also spreading in various industries.

President Orval R. Cook of the Aircraft Industries Association was reported in Wall Street Journal [10/14/57] as saying that personnel layoffs would be needed in order to make cost savings, and thus maintain profits: 'There will have to be some layoffs, perhaps heavy ones.' Employment in the aircraft industry, it is estimated, may decline by around 100,000.

Professor W. N. Leonard of Hofstra College noted that seven of Long Island's defense plants had, among themselves, already laid off 2,470 workers as a result of the Defense Department economy campaign. [N.Y.Times, 10/2/57.] He expected more such cuts and said, 'Many defense workers will have to take jobs paying less, and this will cut spending.' [Later, it did get much worse—Ed.]

Aircraft Industry

A later special report to Time [10/9/57] said that Republic Aviation Corporation at Farmingdale would lay off some 2,500 to 3,000 workers on October 12, while other recent cutbacks had occurred at Grumman Aircraft, Reeves Instrument, Liberty Aircraft Products, and Fairchild Engine and Aircraft. A report in the New York Post [10/10/57] quoted a local machinist union official in Farmingdale as saying that a lot of these people are losing homes, cars—practically everything.

Aircraft job cuts in other parts of the country were announced October 24 by North American Aviation and McDonnell Aircraft. And New York State Department of Labor reported more than 11,000 idled in defense industries in that state in recent months. In Michigan some 260,000 were reported out of jobs in early October, most of them auto workers laid off during the shift to 1958 models.

Layoffs in the appliance industries have also occurred [for example at General Electric and Whirlpool Corporation], as well as in the construction machinery industry [Caterpillar Tractor], in machine tools [several companies], and even in steel where it is reported that 30,000 steel workers who had jobs earlier in the year have been laid off. Press reports said about 5,000 employees had been idled by cutbacks in iron and steel mills in Birmingham, Alabama.

Factory jobs declined. The number working in manufacturing as a whole was lower this September than a year ago. Department of Labor reports show heavy layoffs in September in auto plants changing over to new models. There were declines also in primary metals and non-electrical machinery factories which are normally adding to work force at this time of the year. Also jobs in non-durable goods plants were up less than normal for the season.

Another industry that has seen more than the average number of layoffs has been metal mining. Wall Street Journal [10/17] tells of 'curtailments, shutdowns, and layoffs' through the copper, lead and zinc mining industry of the West. It quotes a Butte, Montana, union official as saying, sadly, 'Our people are existing; they're not living.' The Journal also reports that 'Montana unemployment, led by mining layoffs, was at a record level, for the season, of almost 6,000 in August compared with 2,800 a year earlier. This more than doubles the average for the past eight years.' An estimated 2,000 were seeking employment in Butte last month 'with employment opportunities slim.'

And in the Pacific Northwest, Boeing Airplane Company projected a layoff up to 12,00 throughout its organization over a six-month period. Many thousands of that number have already received their termination notices.

—Compiled by Fred Botts, 12247-3

Rising Tempo of Rome's Demands

C. STANLEY LOWELL
Reprinted from Christianity Today
Washington, D. C., January 7, 1957

THE YEAR 1948 marked the beginning of a new epoch in the American history of the Roman Catholic Church and the beginning of a new epoch in American history itself. In November of that year the leaders of this powerful church undertook a drastic reorientation of their attitude toward the United States government. It was a change not of conviction but of strategy, not of direction, but of pace; yet the new strategy and the new pace were so striking as to constitute in themselves a major change. The statement of the Bishops issued at that time will repay thoughtful reading by every American. These men serve notice that the vast power of their organization will henceforth be devoted to destroying the principle of Church-State separation.

When the Bishops sound the call to action, their language is clear. They say plainly that 'Separation of Church and State has become the shibboleth of doctrinaire secularism.' They pledge themselves to 'work peacefully, patiently and perseveringly' for its destruction. Thus, with a bold announcement supported by the cleverest of propaganda, this powerful church has set out to destroy the free position of the American churches.

This change in Roman Catholic strategy is expressed in the church's attitude toward education. During much of the nineteenth century, its hierarchy was concerned to eliminate from the public schools every reference to God, the Bible and religion and to make the schools strictly secular institutions. Roman Catholics brought more than one hundred cases before the courts to achieve these objectives. I cite here but one of the hundred — that of People ex. rel. Ring v. Board of Education in Illinois. In this case Roman Catholics sought to eliminate Bible reading and devotional exercises from the public-school program. The court agreed with their contention that these practices did violate Church-State separation as expressed in the Constitution and ordered them discontinued.

Roman Catholics undertook to drive religion out of the schools not because they were atheistic or secularistic people, but because they were not powerful enough to determine the kind of religion to be taught. They preferred no religious teaching at all if they could not have Roman Catholic dogma. The provincial council of the Roman Catholic Church in Baltimore, 1840, imposed on priests the responsibility of seeing to it that Catholic children attending public schools did not participate in any religious exercises there. They were also to use their influence to prevent any such practices in the public schools.

The 'secular public school' was in substantial part the achievement of the Roman Catholic Church. Today, however, this church has about-faced. Today it denounces the secular public school as 'godless' and argues loudly for the return of religion to education. Today movements for the teaching of 'moral and spiritual values' in the public schools, like the recent one in New York City, find the hierarchy in hearty endorsement. The change of front is due to one simple fact — the Roman hierarchy now feels strong enough to permeate any public-school moral and spiritual teaching with its own dogma, or to secure public funds for its own private, sectarian schools.

Toward a New Era

The 1948 pronouncement of the Roman Catholic Bishops pointed the way to a new era in American Church-State relations. As far as Rome was concerned, this pronouncement marked the end of the line for Church-State separation. The principle that had received grudging recognition from this group as long as it was a weak, ineffectual minority was now to be replaced by one more in keeping with the main line of Romanist tradition.

The resources of this powerful church were quickly marshaled for action. The Roman Church claims a membership of 33 million in the United States, which has become in the hands of the hierarchy a gigantic battering ram to breach the wall of separation. The adults in this membership comprise the 'Catholic vote' of which we hear so much. There are, comparatively, not many Catholics holding high public office. This is actually a source of strength to the hierarchy since it is able to keep in perpetual intimidation the Protestant officeholders who fear nothing more than that the 'Catholic vote' might be turned against them.

This political power is skillfully wielded to secure preferential treatment for the Roman Church. A good example is the nearly $1 million voted by the Eighty-fourth Congress to refurbish the Pope's summer palace. The payment was for damages allegedly inflicted by American bombs upon a neutral power in World War II. The summer palace was not located in Vatican City, however, and the damage, according to impartial observers, was negligible. This subsidy to the Pope went through as a high-level, nonpartisan item. No one would have thought of voting against it. To do so might have offended the 'Catholic vote.'

American Lobbyists

A far more serious matter was House Bill 6568, which was smuggled through the Senate in the confusion before adjournment of the Eighty-fourth Congress. This provides another $8 million plus for Roman Catholic activities in the Philippines. After the war, American lobbyists visited the Philippines and alerted Roman Catholic officials to the rich potential in 'war services' and 'war damages.' The church collected for services allegedly suffered to its installations. The Bishop of Zamboanga, the Archbishop of Jaro, the Daughters of Charity of St. Vincent de Paul and the Knights of Columbus were among the Roman Catholic groups receiving generous grants. How many millions were paid is difficult for an outsider to determine.

The above-mentioned act merely amended the law so that Archbishop Santos of Manila, whose 'claims' had been rejected by the Commission, could get his millions along with the millions that had gone to his colleagues. Although the sum was 'only $8 million,' it should be recalled that the Archbishop's claims originally ran to $30 million. All of these claims will no doubt be revived, while others from the innumerable church orders will be added. All will be paid in time. Oh yes, there is a chance that the Protestants may qualify for about $30,000 under H. R. 6586.

The public schools of the Philippines received not one cent. Nor will they, because they lack a high-powered lobby and the unveiled threat of reprisal at the polls.

Sectarian subsidies Unlimited

There have been other government subsidies to the Roman Church. The Hill-Burton Act, which authorized Federal grants to sectarian hospitals, has been a bonanza to this church, Under it the Roman Catholics have collected $112,039,000 for their institutions. Protestant institutions have received $23,118,000. Even the disparity of these figures does not tell the story. Close observers have noted the large proportion of the grants that have gone to Roman Catholic hospitals in the South. In Alabama alone, for example, this church has obtained $6 million for its hospitals. Baptist churches with a total adult membership about equal to the Roman Catholic have a conscientious objection to taking Federal funds. Only a pittance, therefore, has gone to this group. What is worse, businessmen have begun to refuse to contribute to Baptist hospital campaigns, asking, 'Why don't you get your money from the government the way the Catholics do?'

The Roman Church has found the Hill-Burton Act a marvelous means for penetrating the hitherto impervious Protestantism of the South. Handsome healing centers built with Federal funds serve as a strong means for the propagation of this faith.

The campaign to shift the cost of Roman Catholic sectarian schools to the American taxpayer bids fair to be as successful as the hospital program. The campaign began easily as fringe benefits were sought from the government—bus transportation, textbooks, health benefits, lunches and the like. More recently, as for example in the Bishop's statement issued in November, 1955, there is insistence upon the 'full right to be considered and dealt with as components of the American educational system.' This statement also claims for parochial-school pupils the same government aid that goes to public-school pupils.

Appeal to State Subsidies

A useful gimmick in softening the public for sectarian subsidies is the so-called 'study' of education. Proposals for a 'study' were slipped through the Connecticut legislature as a 'noncontroversial' item. No sooner had the commission begun its work when there began a spate of press releases about how many children were in parochial schools, the proportion of the educational load being carried by the Roman Catholic Church, the 'saving' thus effected to the taxpayer. Presently Roman Catholic leaders throughout the state joined in a well-directed chorus appealing for state subsidies. The demands were based on the commission's 'scientific study.'

During the past year the drive for tax support has developed yet a new twist. This is a demand that tuition payments to parochial schools be allowable income tax deductions. The fiftieth annual convention of the Knights of St. John meeting in Dayton, Ohio, and the Central Catholic Verein meeting in Wichita, Kansas, are among the many Roman Catholic groups that have appealed to Congress for this kind of 'relief.' Thus a back-door assault on the public treasury keeps pace with the front-door demand.

In many communities where they are in the majority, Roman Catholics have simply taken over the public schools. They have staffed them with nuns and priests whose salaries, paid from state funds, go directly to their superior, without deductions. It took long and expensive litigation to clear up situations of this kind in Missouri, New Mexico and Kentucky. There are still numerous 'trouble spots' all around the country. Last year in Indiana, for example, more than $2 million in tax funds went to 'public schools' that were in effect parochial schools of the Roman Church. There are 152 garbed nuns teaching in the public schools of Kansas with their salaries going to their church.

A Major Decision

In simple justice it must be said that the Roman Catholic hierarchy is now within sight of its goal. Success has come even faster than its leaders dreamed. Many activities of this church are already receiving tax support. Hospitals, schools, orphanages, and other 'welfare programs' are in this category. Other activities receive sizable grants from community chests. The measure of this support is being constantly increased. The time is in sight when all the so-called 'social service' activities of the Roman Church will be supported by tax funds collected by compulsion from citizens of all faiths.

The Protestants, if they are realistic, will see but two alternatives before them. One, they must accept the principle of government subsidies to churches—that is, the principle of plural establishment—and get into the scramble to get all they can for their own denomination. Or, two, they must stop kidding themselves with the false tolerance that plays into Rome's hands, and battle to hold the line for Church-State separation.

The first of these alternatives—plural establishment—would have definite advantages over the 'don't look now' policy being presently followed by the Protestants. If the Protestants were to go all-out for government subsidies, they would probably be able to rectify the absurd inequities of the Hill-Burton grants. They must recognize, however, that in changing from the principle of voluntarism to the principle of official compulsion, they are taking a drastic step, which will have the most far-reaching consequences. Also, and this is a more practical matter, they are moving into competition with old hands at this business of obtaining political favors. It is a kind of competition that, because of their own predilections, the Protestants stand to lose.

Westerly, Rhode Island, is a tiny community that offers a good example of the sort of thing we might expect under plural establishment. The Roman Catholics of Westerly, having developed their own schools to the point where certain public school buildings were no longer needed, proceeded to take them over for their own use. The town council voted them to the Roman Church at a purchase price of $1. The Methodists of Westerly were resentful as they saw these valuable properties falling to the Roman Catholics, one by one. They decided to get one for themselves. After working some wheels within wheels and getting help from Catholic citizens who believed in 'fair play'—they were able to get one of the buildings for $1. Since their success, however, there has been a rash of such giveaways in Rhode Island. The recipient has been, in every instance, the Roman Catholic Church. Now that the principle has been accepted and 'the Methodists are doing it too,' there is no restraint.

The worst feature of plural establishment, however, would be the extremity of its pluralism. Our culture would be hopelessly enslaved as 250 religious establishments or more threw themselves into the wild scramble for tax funds. The principal beneficiary would be the church that is prepared for an operation of this kind, a church that has, in fact, lived on state subsidies for many centuries.

The Alternative

The alternative is clear. Protestants must face this challenge frankly at the political level. As the Roman Church moves toward state financing and toward those favors which are the precursor of establishment, Protestants must stand in resolute opposition. They must do this in good humor and brotherliness, but with unbending firmness. The Roman Catholic propaganda that softens the nation for official favors must be dispassionately exposed. Protestants must recognize that they are not promoting secularism when they insist that the Roman Catholic Church shall raise its funds the way other churches do, or when they insist that there shall be no official favors or preferments for any church.

Roman Catholicism in the United States has come a long way in a century and a half. At first, as a feeble minority it accepted Church-State separation. The principle seemed best in the circumstances. Now, as a powerful minority—united in the midst of a divided majority—it calls for the end of Church-State separation. It intimidates Congress, censors and silences opposition, collects vast sums from the public treasury and drives toward official recognition and establishment. If the Protestants do not unite in determined opposition to this drive, another decade will see the end of Church-State separation here. We shall have, to all practical effect, a religious establishment in a country whose Constitution forbids it. That establishment will be pluralistic—or otherwise.

[Ed. Note: The issue of Roman Catholicism goes far beyond mere fight for government loot, separation of the church and state and the present 'polite' struggle of Protestantism against advancing Roman Catholic influence. It should be kept in mind by the people of North America that they are menaced by the same brutal darkness that pervaded Europe during the Dark Ages.

The Roman Catholic Church is dedicated to turning back the hands of time and will spare nothing or no one to accomplish this end. During World War II, which history proves was actively promoted by the Vatican, 'his holiness' bestowed the official blessings of Rome upon Fascist Italy, Germany, Spain and every other nation that would embrace fascism. One of its central objectives, now, is to involve the United States in World War III—to accomplish what Hitler failed to do: Destroy the U.S.S.R. and restore the Holy Roman Empire in Europe.

Today, the North American Continent is in real danger of succumbing to the stratagems of Roman Catholic Fascism. We had better realize now that the Roman Catholic fifteen percent minority in the U. S. is aggressively pushing and shoving its way into every vital phase of American life with the purpose of gaining absolute control over North America.

Technocracy Inc. is alone in effectively presenting an idea for social operation in North America that will mean everlasting defeat for Fascism on this Continent. Catholicism knows that, even if millions of other Americans have been in too deep a stupor to realize it. Although Technocracy is non-religious, it is anti-clerical; that is, Technocracy opposes the domination of secular affairs by any religious institution or coalition.]

Cross Country Conveyor

SALT LAKE CITY—A high-speed conveyor system that will move a mountain two miles across a valley and drop it into Great Salt Lake is ready to go into operation here.

The giant conveyor system, largest ever built in terms of ton-miles per hour capacity, will carry 30 million tons of gravel fill for construction of a 13-mile roadbed across the lake for the Southern Pacific Railway. The new roadbed will replace a trestle mounted on wood piles which has carried rail traffic over the lake for the last 52 years.

The big earth-moving and construction project is at Little Valley, about 50 air miles north of Salt Lake City. It will cost Southern Pacific about $49 million and will be completed in 1960. The prime contractor is Morrison-Knudsen Company, engineering and construction firm headquartered in Boise, Idaho.

The conveyor system was designed, manufactured and installed by Hewitt-Robins under a subcontract with Morrison-Knudsen. The system consists of two main cross-country conveyor units plus eleven smaller conveyors linked together to provide continuous flow of material from the mountain to the lake.

Three 300-horsepower electric shovels gouge the gravel out of the mountain in 8-cubic-yard bites. The gravel is then trucked to a dumping station and deposited in hoppers which feed to the conveyor system. Stone 8 inches in diameter and over is crushed before it goes into the hoppers.

The belts on the main conveyors are 54 inches wide and travel at 850 feet a minute, about twice the normal speed for conveyor belts. They will handle an average of 4200 tons of gravel an hour, a new speed record for overland conveyor haulage.

To prevent excessive belt wear at these high speeds, accelerating conveyors 30 feet long and 60 inches wide are used at the loading hoppers and at transfer points on the main line where one conveyor unit transfers to another. These accelerator belts move the material at a momentum of 500 feet a minute, thereby easing the transfer to the main belts running at 850 feet a minute.

The main part of the conveyor system coasts down-grade under gravity once it gets rolling. Instead of consuming electricity, it generates power and feeds this power to the electric shovels. Engineers estimate that the motors generate about 618,000 watts an hour, enough to satisfy the power requirements of 4,000 average homes.

A special patented drive mechanism is used to transmit power to the conveyors and to control their descent. This mechanism consists of a drive pulley and a hold-back pulley. When power is required to drive the conveyors, the drive pulley is automatically engaged and the hold-back pulley remains free-wheeling. When the gravity force becomes greater than the friction forces, the hold-back pulley automatically takes over from the drive pulley and regulates the speed of the conveyors.

When the gravel reaches the end of the main conveyor system, it is transferred to a radial stacker capable of building a 250,000-ton storage pile 70 feet high. The stacker is equipped with a 54-inch wide belt conveyor mounted on a 164-foot radial boom. It is necessary to build a stockpile because gravel arrives at the edge of the lake in a steady stream but is carried away by barges intermittently. Under the storage pile are two tunnels housing a pair of 72-inch-wide conveyors. These conveyors run at 600 feet a minute and have a combined capacity of 12,000 tons an hour, loading a 3,000-ton barge in 15 minutes. Material is fed to the tunnel conveyors by ten overhead belt feeders which closely control the rate of delivery, preventing surges and insuring a constant flow of material at full rate without spillage. The tunnel conveyors carry the gravel 250 feet to the edge of the lake and dump it into special barges, 250 feet long and 55 feet wide, said to be the largest drop-bottom barges ever built.

The new roadbed will run parallel to and about 1500 feet north of the present wood trestle. To provide a solid foundation for the fill, the lake bottom is being dredged to remove soft unstable material. It is estimated that 15 million cubic yards of material will be dredged out, creating a trench 170 to 475 feet wide and 20 to 35 feet deep. After the fill is put into place, the top will be reinforced with heavy rock to resist high waves which sweep the lake in stormy weather.

The conveyor system was designed by the Robins Engineers Division of Hewitt-Robins, Inc., New York. The belting, totaling about 23,000 feet in length, was made by the Hewitt Rubber Division, Buffalo. The belts ride on 4,700 idlers or rollers produced by the Robins Conveyors Division, Passaic, N. J., which also manufactured three heavy-duty scalping screens with decks measuring 6 feet by 14 feet to remove stone 8 inches and over for crushing before it is fed to the conveyor system. A total of 27 motors is used to drive the conveyor system when it requires power and to hold it back when it travels by gravity. These motors are connected to the conveyor pulleys through speed reducers manufactured by the Jones Machinery Division of Hewitt-Robins, Chicago. The completely automated system is equipped with six electronic units designed by Hewitt-Robins which are set to control the flow of material at an even rate. The controls also automatically stop the conveyors in the proper sequence and warn the operators in the event any trouble occurs along the two-mile route of the conveyor system.

—Cover photo and data courtesy of Hewitt-Robins, Inc.

NEED TO CHANGE CURRICULUM IN SCHOOLS CITED

DETROIT—The president of the American Federation of Teachers said that America must revamp its public-school curriculum and administration if it is to regain its scientific and technological advantage over Soviet Russia.

Carl J. Megal of Chicago said in a speech to the Michigan State Federation of Teachers, that the "deterioration of America's public schools and colleges in the past two decades enabled Russia to overtake us in technological and scientific achievement."

"We obviously need better science-training programs and a stabilized teaching profession," Megal declared. "We cannot obtain them by employing subtrained teachers to teach of the past rather than the future, in buildings erected and equipped before the Spanish-American War."

—Seattle Times

—An educational system in tune with the Technological Age in which we live has long been proposed by Technocracy.

TECHNOCRACY IN THE FIELD

The Members of Technocracy apply their efforts in various ways to bring to the attention of all North Americans the significance of the present social trends and the need for a technological solution to the problems which arise out of them. They realize that only through their activities and efforts is the public made aware of Technocracy's Program.

In downtown Tacoma, Washington, the lighted marquee of a theater and two large arc lights announced the subject, 'The End of an Era,' by Authorized Speaker Reo McCaslin.

Pacific Northwest Tour

Within the limited time of a three weeks vacation, Reo McCaslin, Authorized Speaker for Technocracy, traveled several thousand miles and lectured in the largest population centers of the northwestern part of the Continent on the subject, 'End of an Era.' Several million people came within range of this dynamic and effective speaker, and while only a fractional percentage of this population attended the meetings, a much larger number was reminded that Technocracy is surviving the 'Fools' Paradise' of our transient 'boom.'

This tour, conducted in September and October, was 56th in a series sponsored by the Tour Headquarters at Section 1, Regional Division 12349, in Vancouver, British Columbia, Canada. Some of the past tours have been relatively limited, covering only a few hundred miles and consisting of a restricted number of meetings. Others have been very extensive indeed, traversing both Canada and the United States, and running into several months duration.

Hundreds of thousands of North Americans have established their contact with Technocracy through Tour Public Meetings and even those who never affiliated with the Organization cannot forget entirely the forthright presentation of facts so characteristic of our Organization.

While Public Meetings were the main events of last autumn's tour, Area and Section Membership meetings were also held. Advance arrangements were made for the Speaker to appear before university and college groups, as well as for a television interview.

CANADIANS do not have to be living in Victoria, or Vancouver, or Edmonton, or Regina, or Winnipeg, or Toronto to have an opportunity to learn about Technocracy. They may run onto it in any part or corner of that great country. For example, when more than 60,000 people attended the 1957 Exhibition in Saint John, New Brunswick, there was a Technocracy booth displaying charts and maps and distributing literature on Technocracy. Thousands of people stopped to receive literature and to ask questions, and some left their names and addresses so they could be notified of further Technocracy activities in the area. For, at Saint John, there is an active Unit of the Organization, known as Unit A, Regional Division 6645, which has long carried on the work of Technocracy in that 'outpost' of the Continent under the able direction of Organizer James A. Mugridge.

TECHNOCRACY
CONTINENTAL HYDROLOGY
THE FLOW OF ENERGY ON EARTH
DYNAMIC EQUILIBRIUM
A CONTINENTAL DESIGN FOR FLOOD AND EROSION CONTROL AND WATER FOR POWER IRRIGATION TRANSPORTATION, RECREATION AND CLIMATIC MODIFICATION

Technocracy booth displaying charts and maps and distributing literature at Exhibition in St. John, New Brunswick.

FREE-PISTON GAS TURBINE SHIP HAILED BY INDUSTRY

The free-piston gas turbine ship William Patterson is considered by her developers as the ship of the future for operators needing vessels of up to 15,000-horsepower.

She will not begin her maiden voyage immediately but already the Maritime Administration is looking forward to installing an improved engine of this type in a new ship, according to Maritime Administrator Clarence G. Morse.

Under the direction of the maritime agency, the 2,500-horsepower reciprocating steam engine of the former Liberty ship was replaced by a 6,000-horsepower gas turbine. This change and the addition of a new fine-lined bow has increased her speed from ten to better than sixteen knots.

The G. T. S. (gas turbine ship) William Patterson differs from the G. T. S. John Sergeant in that the hot gasses that spin her twin turbines are supplied by a free piston gas generator or gasifier. On the Sergeant, the gas is generated in an oil-fired combustion chamber or furnace.

Basically, the Patterson's free piston gasifier is a highly supercharged opposed piston diesel engine and air compressor combined in a single cylinder. It is called a free piston engine because it has no connecting rods, cross heads, crankshaft and bearings. The opposed pistons are connected by parallelogram linkage.

In operation, an air-fuel charge is ignited between the opposed pistons in the cylinder of the gas generator. The generator pistons, which are connected to the compressor pistons, are forced apart, compressing air at both ends of the gasifier.

This compressed air makes the pistons bounce back for another ignition stroke. In bouncing back they force compressed air through scavenging ports into the ignition chamber or gas generator chamber and out exhaust ports into the turbine.

The next step in the development of the free piston gas turbine is outlined in Mr. Morse's latest report on the "Liberty Ship Conversion and Engine Improvement Program." According to this report:

"The new plant would include an after-burner to introduce and burn additional fuel in the exhaust gas between the gas generators and turbine, using oxygen still available in the exhaust for producing additional heat and gas flow to the turbine."

The Patterson's six gasifiers were made by the Cleveland Diesel Engine Division of General Motors Corp. Bethlehem Steel Co.'s Sparrows Point (Md.) yard did the conversion work from plans furnished by the J. J. Henry Co., naval architects. The two geared turbines are of French design. Each is fitted with astern wheels.

According to Thomas E. Hughes, general manager of Cleveland Diesel, the free-piston gas turbine is best suited for power plants in the 6,000-15,000 horsepower range. Nuclear power is better suited for larger vessels, he explained.

The object of the Maritime Administration's $12,000,000 experimental conversion program is to find the best power plant to be used in modernizing the World War II fleet of Liberty ships for wartime use.

The simpler free-piston gas turbine has several advantages over other engines for both wartime and commercial uses. It lends itself to mass production methods because its component parts are small and easy to build. Non-critical materials can be used because of its 850-degree operating temperature. It is easy to operate and maintain, can be started on short notice, and burns Bunker C fuel.

Some of its commercial advantages are low installation cost, a thermal efficiency comparable to the Diesel engine and the fact that most repairs to the gasifiers can be made at sea if necessary.

The Patterson is being operated for the government by the Lykes Bros. Steamship Co. She will be tested on the North Atlantic run while carrying military cargo for the Military Sea Transportation Service, Robert F. Rader, vice-president of Lykes, said. She is commanded by Capt. J. Macdonald. L. L. Howard is chief engineer.

—New York Herald Tribune

STEP TOWARD AUTOMATION

PITTSBURGH—Steel producers are beginning to punch holes in stiff cards the size of bank checks and use them to control rolling mill equipment. It is another step toward automation.

Since punch card programming appeared about two years ago one steel firm already has begun using it. At least nine other big steel companies are installing punch card systems.

Chief aim of the steel firms interested in the new equipment is a higher and more uniform quality of steel. But the automatic controls also will increase a worker's production capacity.

The punch card system is being considered chiefly for blooming and slabbing mills and reversing roughers at present.

Steel men expect to uncover many more uses as they become more familiar with the operation. Punch card system equipment comes high but steel men think the investment will pay off.

Most of the installations now under way will use punch cards to set the width between huge rolls that shape steel ingots into forms for finishing mills.

The cards also will set the speed and direction of the ingots and steel shapes as they pass through the rolling mills. Such operations now are done manually.

A mill operator at manual controls will perform something like 1,200 operations an hour, passing the steel shapes back and forth through the huge rollers of a blooming mill.

For example, the operator screws down the rolls that press the big hunks of steel into thinner shapes. He adjusts the speed and reverses the direction to bring the steel through the rollers repeatedly—as much as 25 passes for a single ingot.

A mill now handles something under 75 ingots an hour.

With the punch card system the card is dropped into a recording machine and many of the operations are then performed automatically. The card can be used as long as the same quality of steel is desired.

One steel man remarked: "Any mill operator worth his salt thinks he is the best in the business. He just naturally adds a few flourishes of his own."

With the card system the mill operation is determined in the front office and once the card is inserted the operation will be uniform from then on.

None of the steel firms expect to reduce their labor ranks as a result of the punch cards, but one firm said it expects the automatic controls to result in additional production.

—Toronto Globe and Mail

DEVELOPING TRENDS

'AUTOMATIC WASH, WEAR'

A new era in women's apparel fashions was ushered in recently by E. I. du Pont de Nemours & Co. at a demonstration of tailored suits, dresses and sportswear that can be put through a home washer and dryer and emerge as if freshly pressed.

A well-tailored suit and a dress were laundered individually by full-cycle washing in an automatic washing machine and tumble dryer, emerging looking neat and ready to wear. The demonstration proved, du Pont pointed out, that the new garments can be washed and dried, with no ironing needed, in home laundry equipment in about an hour.

Scheduled for delivery to stores early in 1958, these fashions, called "automatic wash and wear," are made possible by the inherent qualities of du Pont's synthetic fibers plus new methods of garment construction. In this construction stitching, trim and other findings are used that withstand the rigorous mechanical action of home washing and tumble drying.

Dress, sportswear, and suiting fabrics in plain, patterned, and nubby stylings, as well as chambray and poplin, all containing high percentages of "Orlon" acrylic fiber or "Dacron" polyester fiber, are among the fabrics that meet the rigid requirements for the automatic wash and wear description to be used to identify the new garments. In these fabrics, "Orlon" and "Dacron" are blended with each other or with rayon or cotton.

—New York Herald Tribune

—Another deadly blow for laundry and dry-cleaning establishments. Well, who likes to run a steam presser anyway?

NEW 'BRAIN' TRANSLATOR

SEATTLE—Linguists and engineers expect to test in the near future an electronic brain system which they believe will translate Russian scientific documents into English at high speed with a minimum of human effort.

If successful, it will give the English-speaking world a huge flow of information about Russian science instead of the mere trickle that has been available up to now.

The project has nothing to do with secrecy. The material has been available all along, in Russian books, periodicals and scientific reports.

Translation is difficult because the Russian and English alphabets are substantially different. Idioms, complex word structure and to some extent syntax further complicate the problem. And the number of Americans proficient in Russian language is very small.

But many Russian meaningful units such as words, prefixes, endings, compound words and even phrases can be matched pretty well with English equivalents, says Prof. Erwin Reifler, professer of Chinese at the University of Washington, who heads the project.

—Newark Evening News

—Will this information be coordinated with all other basic scientific information and used by all basic research groups or will it be parcelled out to private enterprise's secret research for profit?

PUSH-BUTTON ERA HERALDED FOR RAILROADS

PHILADELPHIA — Two railroad presidents have predicted that railroads of the future would be entirely controlled by push-button operation.

James M. Symes, of Pennsylvania Railroad, and Joseph A. Fisher, of the Reading, addressed dedication ceremonies of the Franklin Institute's new model railroad—one of the world's most advanced electronically controlled model railway systems.

The model, called the Penn-Reading, is sponsored jointly by the two railroads, and is so fully automatic that one operator can direct up to twenty-seven trains at once over mainline track and through classification yards and switching operations.

—New York Herald Tribune

—More railway employees will join the ranks of the technologically disemployed when this takes place.

ELECTRIC SCANNER

Forty different electronic "pictures" may be observed simultaneously on the tube of a new device that resembles a television set.

Developed by the industrial products division of the International Telephone and Telegraph Corporation, the product is known technically as a bargraph oscilloscope. It was designed by Henry O. Wolcott, a company engineer.

The oscilloscope can tell an aircraft engineer who is testing a new airplane wing exactly what stresses and strains exist at forty different places along the wing at the same time. This is possible by observation of images on the screen.

Determining heat characteristics of jet or guided missile engines and the strength of signals in telephone communications lines are among other uses for the instrument.

One of the principal advantages of the device is that it permits absorption of information by a single glance at a picture tube instead of acquiring such knowledge laboriously from reading forty meters spread throughout a laboratory.

—New York Times

WAYS SOUGHT TO CUT COSTS

A "disassembly line," or assembly-line-in-reverse, used to take apart airplane engines in need of repair, was described to engineers seeking ways to use automatic techniques to cut the cost of aircraft maintenance.

LaRoy A. Wilson of United States Navy Bureau of Aeronautics, said, "The application of automation appears to be a promising field for the solution of some of our maintenance problems," but added that its application to the servicing of turbojet engines "will require radical changes in our thinking and our methods of operation." He also called for development of "engine analyzers" which could diagnose ailing engines, or spot potential trouble, thereby cutting costs.

—New York Herald Tribune

SCIENTISTS 'SPREAD TOO THIN'

MADISON, Wis.—top-drawer United States scientists may be spread too thin over a large number of projects, according to Dr. Ragnar Rollefson, University of Wisconsin designer of the world's biggest atom-smasher.

Dr. Rollefson advanced this as a possible reason why United States science may be lagging behind Russia. Duplication and rivalry in government research may have been overemphasized as the villains since the Soviets jolted this nation by launching their earth satellite first, he said.

The physicist, who is chairman of Wisconsin's Physics Department and director of the Midwestern Universities' Research Association, said that in the United States "only a small number of scientists are experts in missile-development and these are spread widely among a large number of industrial establishments clamoring for a portion of the missile business."

Dr. Rollefson contends that if we had paid more attention to what the Russians have been reporting about their scientific progress, instead of always belittling it, there would have been less surprise at the Russian accomplishment "and the rather alarming capabilities of the rockets that must be required to launch it."

"The Russians announced some time ago that they would launch a satellite soon, and they have been consistently accurate in their statements regarding their technological or scientific capabilities," Dr. Rollefson said.

—N. A. Newspaper Alliance

—The pooling of all scientists into a basic research organization with complete freedom of experimentation and discussion within the country is mandatory for rapid advancement.

TINY BRAIN ON BIG JOBS

NEW YORK—International Business Machines Corp. has unveiled a pint-sized electronic brain that can solve king-sized problems.

The machine is small enough to sit next to a secretary's desk. But it can perform many of the jobs previously accomplished by massive electronic data processing systems that fill entire rooms.

Known as the IBM 510 autopoint computer, the desk-side machine is about the size of a spinet piano. It is mounted on wheels and can be rolled about. The company says a high school graduate of average intelligence can learn to operate it in an hour.

At a press preview, the machine tackled computations involved in the trial design of a power transformer that had kept an engineer using a desk calculator busy for six hours. The 610 came up with the answer in 20 minutes.

IBM officials said it can also solve problems involving bridge and highway design, jet aircraft construction, heat transfer calculations for the petrochemical industry, actuarial studies for insurance companies and pension plans, reduction of test data for guided missile performance studies and forecasts of retail sales.

The computer is capable of 214 additions or subtractions and 52 divisions or multiplications a minute. It can be rented for $1,150 a month or purchased for $55,000.

IBM also introduced a time punch machine which punches employee payroll and job cost information on IBM cards at the source. It eliminates manual computation, key punching and verification.

—Newark Evening News

CREDIT DELINQUENCY RATE ON RISE

The delinquency rate in most lines of consumer credit is on the increase, according to the American Bankers Association.

"Collections are becoming a trifle more difficult with more banks experiencing higher delinquency ratios," the quarterly report of the A. B. A.'s installment credit commission, said.

"This trend, however, may be only a return to normalcy," the report added, "(but) constant and vigilant attention is necessary to maintain proper delinquency control and complacency should be avoided at all cost."

A spokesman for the A. B. A. said: "The tendency is pretty general, and is particularly noticeable in the home loan and appliance field."

The commission also warned against the tendency to lengthen the maturity dates on loans in the home improvement field as a result of competition from the Federal Housing Administration program that recently expanded its terms to five years.

"This commission continues to advise against long-term financing on any class of installment credit as such credits have a serious effect on the velocity of money and the capacity of a community bank to do an adequate credit job," the report said.

The report also noted that "dealer frauds" are on the increase and that most banks reported sufficient losses from fraud "to warrant a general warning."

The commission's report also said that "until liquidation pains and clean-up problems are in better focus in the automobile industry, it would be prudent to watch this area closely."

The study warned bank lenders against any repetition of the "loose" credit policies followed in 1955 because "we may not be as fortunate again."

"The present struggle to maintain balance in our monetary and economic policies," the report concluded, "commands a determined cooperative effort to resist being pressured into intemperate lending policies which could encourage further inflationary action."

—New York Herald Tribune

—Easy credit to move inventories has its drawbacks. When practically everyone buys on credit any curtailment in employment causes difficulty for the collection departments.

OUTPUT STARTS ON FOOD CANS OF ALUMINUM

CHICAGO—Kaiser Aluminum & Chemical Corp. is starting the first large-scale commercial production of aluminum food cans at its container plant at Wanatah, Indiana.

The company disclosed it is working on an initial order of 5,500,000 cans for Kraft Foods Division of National Dairy Products Corp. The Kraft cans will package grated cheese and are due on grocery shelves early in 1958.

The lightweight aluminum cans are being produced with seamless can body and bottom in one piece. The manufacturing process was developed at a Kaiser laboratory in Chicago.

Kaiser already has delivered to the United States Air Force aluminum cans for packaging precision bearings.

—Associated Press

—The Norwegians have been using aluminum cans to con fish for years and years; it's about time we were 'catching on.'

DO YOU KNOW THAT . . .

Sixty-one million adult Americans have not completed high school and 44 million have not completed the ninth grade?

Only one in every five of the half-million women employed in the federal government works in Washington?

FOOLS RUSH IN—TO DISASTER

What happens when a disaster strikes? Do the people flee? Who runs where? Is there looting? What happens to communications?

The National Academy of Sciences, the top scientific society in this country and the advisor to Congress on science, wanted to find out in the national good. They wanted to study the problem with the tools of science.

So the academy appointed a committee to study disasters, "any kind of disaster," and to report on what happens to the people.

Now, in its ninth report, the group tells of a curious behavior on the part of a population in the vicinity of a catastrophe. It is a behavior that has cost lives, increased damage and interfered with relief operations. They call it convergence.

They found evidence of convergence in the wake of tornadoes, explosions, floods, bombings . . . in fact, whenever there was that rapid sudden descent of destruction on an unwary community. What is convergence?

It is the spontaneous movement of people, messages and supplies toward disaster areas. All three pose grave problems for disaster-relief teams. The people clog the roads and get in the way. The messages break down communication systems, the supplies are often unwanted.

Here are some examples of what can happen:

Texas City, Texas: A munitions ship exploded in 1947, wiping out half the city. Almost immediately hundreds of vehicles converged on the city. Within an hour the roads were so jammed by incoming traffic that the ambulances could not get out.

Worcester, Massachusetts: A tornado in 1953 carried a large section of the town away. Twenty minutes after the impact there was a traffic jam of incoming, uncalled-for relief vehicles. In addition, hundreds of people ran into the impact area looking for relatives.

Hiroshima, Japan: An atomic bomb on Aug. 6, 1945. Within a day, thousands of refugees came streaming back into the destroyed city blocking almost all access roads.

The same thing happens with messages. Immediately after a disaster the telephone system jams as thousands of calls are loaded into the exchanges. Then, within a few days, supplies begin to arrive: bedding which must be burned, old clothes that are inappropriate, spoiled food—all worthless and sent by well-meaning people.

Why does this happen? The committee had some answers for this:

First, there are the people who have fled the disaster area who then feel the strong pull to return. They want to look after their property, their loved ones, and, even if all are gone, there is the desire to be among the familiar things.

Next come the anxious people. These are the relatives, the friends who go to the disaster area to find out what happned to the people they know.

After these there are the helpers, both the formal relief agencies and the unwanted assistants.

There are also the curious. They often come in droves.

Finally, there are the exploiters: the looters, the pilferers and the profiteers. The report comments that looting is overestimated by most disaster agencies, but pilfering has been underestimated. Profiteering also occurs, but the degree has not been fixed.

Finally, the committee gave some advice on handling convergence. Of prime importance is communication. Most of the people who run toward ruins simply don't have information. If they had it they would be less likely to move toward the disaster area.

But the information they need is specific.

This kind of data can't be supplied by radio, television or by newspapers in a hurry. Even if these media could deliver the data, they couldn't collect it in a major catastrophe.

The committee suggests the establishment of a corps of trained information gatherers in each community. For this they suggest teachers, who are used to keeping records and who have a measure of respect and trust in the community.

Such a corps would reduce convergence if the information were available at dispersed information centers.

The committee makes other proposals: effective traffic control, planning of emergency centers so that convergences take place outside the disaster area, identification systems and, above all, planning in advance of a disaster for the control of convergence.

—By Earl Ubell, Science Editor
New York Herald Tribune

Statement Required by the Act of August 24, 1912, As Amended by the Acts of March 3, 1933, and July 2, 1946 [Title 39, United States Code, Section 233] Showing the Ownership, Management and Circulation of

The Northwest Technocrat, published quarterly at Seattle, Washington, for January, 1958.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher: Section 3, R.D. 12247, Technocracy Inc., 2208 Eighth Avenue, Seattle 1, Washington. Editors: George Kellogg, Harry Briggs, and Ruth Berge, 2208 Eighth Avenue, Seattle 1, Washington. Business Manager: Rina Corcoran, 2208 Eighth Avenue, Seattle 1, Washington.

2. The owner is: Section 3, R.D. 12247, Technocracy Inc., 2208 Eighth Avenue, Seattle 1, Washington. No stockholders.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

Rina Corcoran, Business Manager

Sworn to and subscribed before me this 21st day of October, 1957.

Clara J. Humes, Notary Public
My Commission expires July 25, 1961

TECHNOCRACY

North America's Only Social Dynamic

WHAT?

Technocracy is the only North American social movement with a North American program which has become widespread on this Continent. It has no affiliation with any other organization, group or association either in America ro elsewhere. The basic unit of Technocracy is the chartered Section consisting of a minimum of 50 members and running up to several hundred. It is not a commercial organization or a political party; it has no financial subsidy or endowments and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are $9.00 which are paid by the member to his local Section. Members wear the chromium and vermilion insignia of Technocracy — the Monad, an ancient generic symbol signifying balance.

WHEN?

Technocracy originated in the winter of 1918-19 when Howard Scott formed a group of scientists, engineers and economists that became known in 1920 as the Technical Alliance—a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934 Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundation of the present Continent-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses, or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing!

WHERE?

There are units and members of Technocracy in almost every province in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces. Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the nearest Technocracy unit.

WHO?

Technocracy was built in America by Americans. It is composed of American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this Continent. Membership is open only to American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective office or active office in any political party.) Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher or housewife—so long as you are a patriotic American—you are welcome in Technocracy.

Pamphlets

Introduction to Technocracy	25c
America Must Show the Way	15c
Our Country Right or Wrong	15c
Continentalism—The Mandate of Survival	15c
Make Way for Social Change	15c
I Am the Price System, and The Culture of Abundance	15c
Man-Hours and Distribution	15c
The Energy Certificate	15c
Science versus Chaos	10c

YOUR SUBSCRIPTION EXPIRES WITH THIS ISSUE

SUBSCRIPTION ORDER

To: THE NORTHWEST TECHNOCRAT
2208 Eighth Avenue
Seattle 1, Washington

Enclosed herewith is $..................to cover.................. subscription(s) to Technocracy's Magazines for........ years.

All Three Magazines, 12 months, 12 issues, $3.00. (All three publications are quarterlies, but so rotated that one appears each month.)

THE NORTHWEST TECHNOCRAT
TECHNOCRACY DIGEST
THE TECHNOCRAT

☐ This is a NEW subscription.

☐ This is a RENEWAL subscription.

Name..

Address...

City....................................Zone............State....................

(or) City...Province..............................

(Foreign rates, other than Canada, Mexico, and U. S. territories, 20% (60c) additional to above rates.)

WE, THE CITIZENS

As the economic tensions increase and as political crises follow political crises, and as the world-wide cold war breaks out in one hot rash after another, we, the citizens of the United States, are going to find that we have become committed to a policy not merely of short range stupidity but of gigantic long range blunders.

THE NORTHWEST

Technocrat

APR. '58

IN THIS ISSUE:

- What Shall The Youth Be Taught?
- Notes On Organization
- Women In The Technate
- Social Movement For Science

No. 191 (Vol. XXII)

25¢

Sec. 3, R.D. 12247
TECHNOCRACY INC.
Seattle, Washington

Scientific Recognition

WHEN THE governing body of an area becomes less and less capable of operating an adequate social program, it is time for drastic action. The utter disdain for people of intelligence held by the politico, business and the ecclesiastical hierarchies delays the solution of problems requiring the application of scientific intelligence. Research in the United States is practically non-existent except for personal or corporate gain. The method of science apparently has been given a warmer welcome however, since the Russian achievement of rocketing Sputniks into predetermined orbits. At least this achievement has changed U. S. thinking regarding the capabilities of other peoples. Scientific and technological principles of research and development may be applied to the solution of complex problems in any field by people of any nation. Science leads on the road of progress.

In spite of the information available on foreign missile programs the politician, influenced by business enterprise, was determined to keep the status quo of defense planning. By maintaining the status quo, the U. S. government could direct an operation by which the defense program provides weapons for naive war planners and prosperity for business by keeping thousands of people on payrolls all over the country. The realization that other people can design and produce jet bombers, atomic and hydrogen bombs did not seem to awaken the U. S. government operators, but when these same peoples surpass our accomplishments in a certain other field, namely rocketry, these same operators seem to be much concerned. It is a sad state of affairs when events elsewhere dictate the operations in the United States.

There is little indication that scientific progress will be stripped of interference from business enterprise. The scientist must be free to conduct research for this Continent if maximum results are to be achieved. Research projects for a specific end must be coordinated in order to achieve the objective in a minimum of time. A free flow of information is essential to the scientist so that repetition of research is diminished.

The people must recognize that the scientist has a responsible position in society, instead of perpetuating the present democratic disdain for people of intelligence. The method of science must be understood by the leaders if the nation is to progress. This understanding must encompass the benefits from applied science for all of the people in the area instead of for only a select few. The prevalence of belief in old superstitions is ample evidence of the general ignorance of the scientific approach. Scientific investigation can be carried on in fields other than rocketry and weapons of destruction. One field in urgent need of attention is the social field. Our immense production seems to have caught up with our ability to create debt and this presents an unprecedented problem.

In the social field, Technocracy proposes the use of technological techniques for the production and distribution of goods and services for all as well as to provide an adequate area defense.

Measures which lead to peaceful coexistence with other nations are the only reasonable paths left to pursue in the face of present area annihilating weapons. Therefore, it is about time that the scientists and other trained personnel of North America replace the incompetents of politics and business in the administration of the affairs of North America.

Technocracy has the only solution for the problems of a society confronted with the distribution of an abundance, a solution based on science. Your local Technocracy Section will gladly aid you in your study of the social problem before North America.

—Editorial Board

COVER PICTURE

World's Longest Bridge

The 24-mile-long Lake Pontchartrain Causeway as seen in an aerial view from the south side of Lake Pontchartrain. The figure '8' structure in center of photo is a turnaround located nine miles from the south shore. It is used by traffic for making U-turns in either direction. In background is one of three navigational humps on the Causeway. There are also two bascule bridge openings for passage of large marine craft. Photo courtesy Bauerlein, Inc.

(See article and more pictures on Page 19)

APRIL 1958 THE NORTHWEST Technocrat

WHAT SHALL THE YOUTH BE TAUGHT?

Our officials and leaders of public opinion feel the immediate need for only one kind of technician, namely rocket experts. Insofar as they are concerned, the only important social problem on this Continent is that of catching up with the Russians in the field of rocketry and missiles.

FOR SEVERAL years now, it has been known in America, at least among those who do any serious reading and listening at all, that the educational system of Russia is superior in quality and effectiveness to that of the United States. But, until recently, the tendency here has been to brush this knowledge off as being of little moment. The general attitude of our leaders has been something like this: 'We in America are not able to use to the fullest the knowledge and training we already have, so why bother with educating more people or educating them more thoroughly? Too much education is dangerous, anyway, particularly that education which places emphasis on material things; for one thing, it causes people to think too much about things that shouldn't be thought about and to question the old established values. For another thing, it would flood the country with too much intelligentsia and depress the market value of higher education. So, what if the Russians do educate more people and do it more thoroughly than we, where will it get them? Russia is so backward it won't be able to use its trained intelligence anyway.' Mr. John Foster Dulles has been careful to point out that the United States leads Russia in divinity schools.

The sputniks shattered many of these beliefs over-night and created a near-hysteria among the would-be leaders of our society; but the politicians were scared most of all. The reaction was a mental flip-flop in the opposite direction. The new clamor insisted that the American people should have more education and get it quick—in order for us to keep up with the Russians, nothing else. Nobody seemed to know what kind of education was most needed or what to do with it if we did have it; except that one thing was certain, we must have a lot of rocket technicians and have them immediately. The reasons given for this were either too vague to be intelligible or they were asinine. The reasons given by the politicians were the silliest of all; they were, in effect, that we must be ready to annihilate the Russians at the same time they annihilate us.

That is some goal for an educational program! But it was voiced by both Republicans and Democrats; by reactionaires, conservatives, liberals, and political nondescripts [We don't know what the radical viewpoint might be since no radical politician has been permitted to emerge in America for at least a generation.] The politicians know that they themselves are all blubber and bluster, with little technical knowledge of the world about them; and that, if a technical emergency should arise, they would be helpless to do anything except rant and scream about the failure of the engineers to handle their flunky jobs effectively. To people like Nixon, Knowland, Dulles, Johnson, Truman, and Charles 'Engine' Wilson, scientists, engineers, and technicians are useful in their place, but that place it not up among the 'respectable' people. Any scientist or engineer employed in government service or in big business

The Northwest Technocrat is published quarterly by Section 3, R.D. 12247, Technocracy Inc., 2208 Eighth Avenue, Seattle 1, Washington. Entered as second class matter July 11, 1949, at the Post Office of Seattle, Washington, under the act of March 3, 1879. Subscription rate is $1.00 for four issues. Single copy 25 cents. Continental Headquarters of Technocracy Inc. are located at Rushland, Pennsylvania. Entire contents copyrighted 1957 by Section 3, R.D. 12247, Technocracy Inc.

soon learns the significance of this attitude.

The politicians, businessmen, and socialites exhibit a fear and disdain toward the technically-trained people. They refer to them by various pet names, none of which are intended to be complimentary, such as: 'longhairs,' 'eggheads,' 'brains,' 'technocrats,' or 'materialists.' They admit that the technical men are needed to handle certain specialized jobs, but their function is really to serve as 'stagehands' for preparing the props for the truly 'important' dramatists in our society. But they feel that the technical people are not to be trusted with matters of social decision or even worthy to be invited out in the Best Circles. A strong point is made of the fact that some scientists and inventors turned out to be failures in the business world. After all, according to the standards of our time, if they're so smart why didn't they get rich?

How many technical men under the American system are able to make upwards of $25 thousand per year? Yet, that is the base pay of a Congressman, and any successful businessman can make double that amount. So, you see, a scientist can't be very important. But they are needed to keep the wheels of industry turning so that the very important people can continue to keep up the pretense of being important. Further, they should not be encouraged too much lest they come up with some new idea or principle that will invalidate the old values and old virtues. Truly, the demons turned loose from Pandora's box must have been scientists.

CONTENTS

No. 191, Vol. XXII April, 1958

Page
What Shall The Youth Be Taught? . . 3
Notes On Organization 10
Women In The Technate 13
Social Movement For Science 15
World's Longest Bridge 19
Developing Trends 20
Have You Observed? 23
Technocracy In The Field 24

EDITORIAL BOARD
Editor . . . . George Kellogg
Assistant Editors . . . . . Ruth Berge
Harry Briggs
Editorial Assistants . . . . . Fred Botts
Edith Jess, Secretary
Business Manager . . . Rina Corcoran.
Circulation . . . . . . Lucy L. Barnes

Printed in U.S.A. by volunteer and union
labor on Technocracy's own press

With such a background of attitude toward scientists and technicians, the present leaders are perturbed immensely by the prospect of America's having to catch up with the Russians in technical training and general objective education. That is a social goal which is entirely at variance with their heart's desire, which is closer to a society wherein the major social goal is making money.

Our officials and leaders of public opinion feel the immediate need for only one kind of technician, namely rocket experts. Insofar as they are concerned, the only important social problem on this Continent is that of catching up with the Russians in the field of rocketry and missiles. Rocketing has suddenly become fashionable. For example, in the parochial schools [where any kind of science has been avoided like a plague] there is now a big splurge of student experimentation with rockets.

Whatever America's educational needs are for the immediate future, we are assured that it involves the expenditure of large sums of money, a large expansion in the number of new buildings, and an increase in the number of political appointees to help 'administer' the program.

Sloppy Education

The major emphasis of Education in the United States has been on liberal arts. The technical subjects have been strongly discounted and often neglected altogether. Only a small percentage of the high schools give any adequate training in science subjects; practically none give basic training in the scientific attitude or train the students to make accurate and precise recordings of their observations and to derive the permissible conclusions therefrom. As a consequence, the sloppy education obtained in high schools often becomes a handicap rather than a help to the student going on into some special field that requires objective observations, clear and accurate evaluations of data, and precise, coherent recording or reporting. In a society that is as dependent on technology as North America, the accumulated effect of all this is catching up.

The American education system turns out artists, journalists, actors, and go-getters; but only a few of high quality, even of these. As a consequence, a high school education is not much of a recommendation for a person seeking a function of responsibility in the United States. Its chief function is to 'prepare' teen-agers for entry into college, an objective which only a fraction of them pursue. As for preparing them for making a livelihood, it fails there too; most young people leaving high school need special on-the-job training to qualify for any kind of skilled occupation and for most semi-skilled jobs.

Strict Discipline Decried

The 'modern' educational theories decry strict discipline in the schools, particularly anything that can be construed as punitive in nature. Hence, the teachers and supervisors are helpless to enforce orderliness of behavior in the classrooms or on the school grounds; and the rowdies are quick to take advantage of the situation. The busy-bodies, the do-gooders, and most parents become aroused to wrath at any report of strict discipline or restraint being imposed on children in public schools. The 'dears' are not supposed to be 'treated like animals'; after all, they are 'human beings'! But any biologist knows that children are, first of all, animals, and that the human part is only a biological efflorescence.

No one, who is interested in training animals, would think of letting them have full freedom of choice and action. In animal-training, discipline is simple, direct, and inevitable. But, on children, you are supposed to use 'psychology.' In practice, this usually means employing some subtle, roundabout technique of persuasion, often deceptive in nature. It is a technique of approach which is analogous to the 'Birds and Bees' approach of education about the 'facts of life.' But most mothers who have tried applying the ruses of 'psychology' to the process of feeding their young children, for example, will tell you that the little rascals can keep one jump ahead of the adult perpetrators in their wiles and stratagems.

Most private and parochial schools still are devoted to a regimented form of discipline, much of which serves no significant purpose. In these schools, the pupils who are incorrigible are dumped out onto the public schools, where they amplify the disciplinary problem that already exists there. The result is a deterioration in the reputation of the public schools as a fit place to send children for an education; and this is not entirely unintentional: It helps promote business for the non-public schools.

We are not attempting in any way to advocate discipline in the form of goose-stepping regimentation, which is so characteristic of military academies. Most of that type is stupid in concept, execution, and objective. It has a place only in show business, where strictly coordinated group movements are executed for artistic effect. A closer approach to effective discipline is achieved by the better athletic coaches, who can get their charges to exert themselves to exhaustion and come back for more. In this case, the goal is superior achievement; if you make it, you're a hero; if not, you're a washout.

Accepted Function of School

One factor adding to the handicaps of the teacher in the schools is the lack of a student interest in a goal to be reached by the subjects taught in the schools. Too often, the accepted function of the school and the teacher, insofar as society at large is concerned, is that of providing detention for the youth during its most rambunctious periods of life, freeing the adults from distractions and annoyances from this source for significant periods of the day and year. On the other hand, the children are supposed to welcome the opportunity to get away from their parents and mingle with others of their own kind, and maybe learn something that may be of use to them at a later date. A contributing factor to the listless attitude of the students toward their school subjects is their observation that what they learn in schools appears to have so little application to later life, as judged from observations on the lives of their parents. Their attitude is, why go through that 'phase' of life if it's not going to be useful later on? A counter argument is that training in one subject develops habits and skills which can be carried over into other, more practical subjects. This belief, however, turns out to be more superstition than fact.

Another factor which tends to stultify the educational system is the abject fear on the part of adults and partisan groups of controversial subjects being discussed in the schools, particularly controversies prevailing in the present society. Debates must be limited to very narrow and harmless discrepancies of opinion, such as: Which has contributed most to the advancement of civilization, the horse or the cow? What school would dare sponsor student debates on such fundamental controversies as: collective designed direction versus private enterprise; functional control versus political regulation; militarism versus pacifism; agnosticism versus faith; or even marriage versus free love?

The Search for Adventure

The very young child is full of desire for activity and is vitally charged with the spirit of adventure. But where in practical life are there outlets for children's internal energy and opportunities for adventure? Out of desperation, they wander off into a make-believe world, often of ancient vintage, where people 'had real opportunities' for adventure. They tend to emulate and imitate the exciting lives of certain legendary hero types, such as American Indians, Pioneers, and Cowboys. Formerly, in Europe, the search for adventure led to childish imitation of the heroes who lived in the days when knights wore armor and went about capturing [beg pardon, rescuing] fair maidens from other captors. The American youngster is more devoted to the heroes of this Continent, in spite of attempts to glamorize foreign bandits and professional fighters, such as Robin Hood and Richard the Lion Hearted. The very young generation may also seek an outlet in the emulation of some contemporary hero type men of action, such as firemen, engine drivers on the railroad, policemen, soldiers, gangsters, pilots. Or they may escape imaginatively into the future, where they can become spacemen. Or they may like to think of themselves as some sort of superman, always a favorite subject of reverie for youngsters of all ages, a concept which was given impetus and specific definition by the stories of Tarzan and, later, by an array of cartoon characters, beginning with Popeye and proceeding through an array of supermen to that acme of all supermen, Superman himself.

Young animals go through similar stages of development, preparing themselves through play and make-believe for a more serious and severe life ahead as adults, although they are not aware of such goals. They have the advantage over children of being guided in their activities by instinct, which is supplemented by imitation of others of their kind. Further, their juvenile play bears a close relationship to the adult patterns of activity they will be called upon to follow later.

Among primitive people, the activities of the young human animals are essentially direct training for adult patterns. They may play at hunting, fishing, stalking wild animals, climbing trees, and defeating enemies, the particular emphasis depending on the circumstances of tribal life. But what adult pattern is there for the young American to play at? Playing at working in an office or at a factory job is hardly suitable to his dynamic nature at that age. Playing at housekeeping and motherhood for the young girls may be closer to life but still does not fulfill the need for active adventure. Watching thrillers on television may be a vicarious substitute of a sort but deprives them of real and active participation. The commercials on TV, as stupid as they are, often come closer to the real life of the child than do the dramas slipped in between the commercials. Outside of swaggering around in out-dated costumes and brandishing weapons of a bygone age, there is little adventure in life for the suburbanite youngster. The circumstances do not permit his carrying childhood dreams and adventures over into adolescent and adult life. They are expected to make a complete break with their childhood as they grow up, which is something many of them find difficult to accomplish, and the society is plagued with adult juveniles.

Too Many Adults

For the older youngsters, there may be membership in the Boy Scouts or Girl Scouts to provide alleged adventure. The principal trouble with the Scouts is that there are about a third as many adults in the organization as juveniles, with the inevitable result that scouting is a farce. In the first place, scouting pretends to emulate the life of a remote generation, which would not be so bad in itself if it were treated with seriousness as a means toward developing self-reliance and endurance. But whenever anything starts getting rough, for example the weather, the Scouts are quickly supplied with provisions, or rescued, by helicopter. Further, the Boy Scouts and Girl Scouts are given a thorough indoctrination in adult superstitions, rituals, and phoney virtues. Under these circumstances, what chance do the juveniles have for adventure?

The competition among Scouts for 'merit badges' is undoubtedly the worst farce of all, providing more of a training in dishonesty and deception than in achievement. [We were once called upon to serve as judge in certain merit badge tests; and, even after being as generous as possible in making decisions, had to turn down some four out of five applicants on the average. Needless to say, our services in that capacity were never required again.] In recent years, Boy Scout jamborees serve in major part as a means of gathering together large numbers of boys for commercial proselyting purposes.

In adolescence, sex adventures tend to take predominance over other interests, outrivaling even sports and swashbuckling; but the mores of the community are so 'crazy and mixed-up' in this area of interest that as often as not sex adventures lead to 'delinquency' rather than to 'adjustment.'

Quickest Way to Learn

The quickest and most effective way for one to learn something is through being faced with a problem requiring that particular knowledge for its solution. Children will work with energy and enthusiasm, either alone or in groups, to accomplish something of interest to them, such as building a shack, making a boat, digging a cave, decorating a room, solving a puzzle, or raising a pet animal; and they will make a special effort to learn the knowledge required in that accomplishment. In that context, knowledge and training seem to 'make sense.' On the other hand, they can memorize and recite prescribed lessons under compulsion, but that is not where their enthusiasm is. To them, action and knowledge go together. Another advantage to them of working out solutions to interesting problems is that it keeps them in contact with reality. For example, flying a kite is quite a different experience than planning an imaginary trip to Mars in a Flying Saucer. For the former, you must have some knowledge of nature—of energy and materials and how to manipulate them toward a specified result.

In adult life, one does not acquire knowledge by sitting in a chair and trying to think of something or to induce an inspiration. It is doubtful that much primary knowledge can be acquired by sitting around a conference table and engaging in discourse or from academic study. The lasting impressions and the real understanding of things come from direct and personal observations of reality, supplemented in turn by inquiry, discussion, and cogitation, reinforced by a return to direct experience with things and events. It is true that some people can comprehend much from only smatterings of experience while other people could travel around the world and learn practically nothing. That is a matter of individual differences and capacities.

What to Teach

Now, let us come back to our basic question, what shall the youth be taught?

First, let us propose that they be taught to get around in the environment in which they live; in other words, learn confidence and self-reliance. In this category, we would include the knowledge and experience required to look after one's personal needs and to use the services and facilities provided by the society; we would include the knowledge and experience required to get around in the Area, to find companionship, to find information, and to avoid dangers. This phase of education is not a conscientious part of the present educational system, at least not above the kindergarten level. The children and adolescents learn in a haphazard way to get about, but far too much of it is left to their own initiative and discovery. This is not intended to imply that they should be kept under the supervision of some 'mother hen' adult but, rather, that the essential knowledge should be made readily available to them and that facilities for their convenience be provided.

Second, let us propose that the youth be disciplined in social living; that they be taught the restraints, the amenities, and the respect for others essential to living harmoniously with other people. Let them be taught the advantages and techniques of mutual aid and cooperation. And let them learn that the show-off, the braggart, and the conceited person are more likely to be bores than heroes in a social group. We may very well begin by teaching the very young that, while personal dramatics and tantrums may have special uses in life, they do not have a place in 'everyday life.' This is one field of training that appears to be noticeably neglected with respect to the latest crops of young Americans.

Third, let us propose that the youth be taught the facts of nature and a basic understanding of the phenomena in the world around them, free of superstition, legend, and folklore. For example, let them learn about astronomy free from the legends of Greek mythology. Let them also learn about the nature and origin of rocks and their classification. Let them learn something about the structure and physiology of plants and animals and something of the different kinds. Let them learn about matter and energy in their different forms and manifestations, including a generalized briefing on nuclear energy. For the curious, the world of nature can provide an endless adventure.

Fourth, let us propose that the youth be taught much about the geography of the world, including the circumstances of human life on various parts of the earth; that they be taught, with particular emphasis, about the geography, the resources, the industry, and the ways of life on this Continent. Let this study of geography be supplemented by a study of history.

Fifth, let us propose that they be taught the fundamentals of the social operation of the Area and about the ways in which goods and services are provided. Further, let them be taught the need and responsibility of their finding a place of function in the system and preparing themselves for it.

And, sixth, let us propose that the youth be taught to employ their free time in ways that are satisfying to them individually and at least harmless to others and to the society. In this field would be included development of artistic talent, which for the most part would be used as a means of subjective expression. Only when talent and training are demonstrably outstanding should artistic expression be viewed as worthy of public attention or as constituting a vocation. There are many other ways in which the individual can find personal satisfaction and 'fulfillment' in his free time. [Let those with blue-nosed moralistic tendencies find fulfillment in their gnashing of teeth at the sight of others enjoying themselves.]

Teaching Rocketry of Little Importance

You may note that we have mentioned nothing about teaching the youth to successfully fire rockets into space. It is because we have not considered it very important in the full context of an educational program. For the same reason, we have said nothing about preparing to charge enemy soldiers with fixed bayonets, or watching the skies for enemy planes, or learning the techniques of eliminating fallout from the premises. But there are a few other things that we would like to discuss a little further.

Those students of exceptional intelligence and initiative should be given every opportunity to progress into fields of advanced study, including, in the 'opportunity,' subsidization by the society, while at the same time the dullards should be sidetracked at an early stage into channels more suited to their limited abilities. In this phase of the educational system, it must be recognized that people of advanced intelligence are more capable than the average of making independent decisions and judgments, that they do not require the petty supervision and prescribed regimen that are usually essential to fitting a moron into the society, and that they are less tolerant of repetitive routine. They need the stimulation of association with their peers and some prompting if they are inclined to be lazy; but regimentation of action is not for the intelligent. And, certainly, they should not be placed under the authority of 'laymen,' such as politicians or business administrators.

Principles of Realism Important

In the field of national and international affairs, it is urgent that the youth be taught the principles of realism. For example, that the United States is only a small part of the earth; that there are other people in the world with needs, desires, and abilities similar to our own; that the United States does not have a divine right to plunder the rest of the globe of its resources. They should be taught that North America's destiny lies in the consolidation and coordination of the Continental Area into a social unit, and that it is not our place to dictate the ways in which other areas shall develop their destinies. At the same time, this Area can exert its influence toward the eradication from the earth of certain social patterns which are repulsive to mankind in general. The people of the world have already acted against bonded slavery, and the few remaining pockets of it are due for early extinction. We could very well declare our intolerance of fascism, which is so cruel and inhumane in its operations and repressions that it has no place in modern life. Warfare is another thing we can take active steps to outlaw.

At present, there is much advocacy of a stepped-up program of education, involving heavy expenditures of money for new buildings and equipment, for more and higher paid teachers, for lush administrative salaries, and for subsidization of chosen students. But this emphasis on spending money is not as important or necessary as the clamor for it would indicate. A much more efficient and effective educational system probably could be managed at even less cost than at present.

There is no sensible excuse for not utilizing the buildings and facilities we now have on a 24-hour per day basis, using the same buildings for three or four shifts of students each day. The buildings have to be heated and tended all the time anyway, so that cost would not be materially increased although the load factor would be multiplied. With a standardized curriculum for the whole Continent, and with the use of television, radio, and motion pictures as significant adjuncts to 'live' teaching, the number of teachers would not have to be greatly expanded, if at all. The present high cost of education is only one facet of the general inflation and inefficiency of the Price System. The educational system and technique are due for a major overhauling from top to bottom.

The first and most important part of this overhauling should consist of a program of what shall be taught—a program which is in conformity with the reality of the present situation and with the social requirements of this Continent. And this should be decided on the basis of the functional needs and general welfare of this Continent and not on the basis of 'catching up' with someone somewhere else on the globe.

—Wilton Ivie, CHQ

TECHNOCRACY ON FOREIGN AFFAIRS

North America has been maneuvered by political, business and ecclesiastical interests into assuming a belligerent role on the side of international fascism in its war against communism. Technocracy states that an idea is not defeated by force of arms but by a better idea. Technocracy asserts that it will be disastrous to North America for this Continent to become involved in a war over political or business interests thousands of miles from North America, and charges that promotion of the idea of war by any individual, group or organization makes such faction the admitted enemy of the North American Continent.

Technocracy declares that war is unthinkable in this Scientific Age; Technocracy is unalterably opposed to the use of military force based abroad as an instrument of foreign policy, stating further:

> The primary objective of defense for North America is being sacrificed by attempts to make an American financed fortress out of half the world, which has resulted in a treasonous dispersal of North America's defensive strength;
>
> The commitment of United States to treaties and alliances, as NATO and SEATO, has not only weakened the ability of this Continent to protect itself because of the geographic nature of these alliances, but has actually increased the possibility of armed conflict because of the warlike political objectives attendant to such alliances.

Technocracy states that North America's problem is right here at home, not 12,000 miles around the globe, contending:

> Science alone is capable of organizing and directing the defense of North America, and that the Price System is a lethal interference in this process;
>
> North America must be consolidated into one technological, geographic and social unit, from the North Pole to the Amazon, for maximum defense and security, eliminating political boundaries and political control;
>
> A dynamic technological viewpoint of international affairs must replace the present paranoid - schizophrenic attitude of North American policy makers.

Technocracy Inc. states its position from a foundation of scientific fact. Technocracy solicits the inquiry of every responsible citizen of North America, and requests their active participation in the growth and extension of Technocracy's leadership of the Social Movement for Science in North America in preparation for the greatest social change that has ever occurred in recorded history!

—12247-1

PROFITS DROP

WASHINGTON — The after-tax profits of manufacturing corporations dropped 8 per cent in July-September from the previous quarter, while total sales dipped 1 ½ per cent.

This disclosure of the profit squeeze on manufacturing firms was made in a joint report by the federal trade commission (FTC) and the securities and exchange commission (SEC).

The two agencies said that earnings after taxes on each dollar of sales averaged 4.7 cents, the lowest ratio of profits to sales since the recession year 1954.

—The Oregonian

NOTES ON ORGANIZATION

The statesmanship of the New America exists today, not in the debt merchant or the politician or the gangster, but in that personnel which daily in every walk of life is designing, constructing, and operating the physical equipment of this Continent.

THE STATESMANSHIP of the New America exists today across this broad land of ours in the personnel, not of the debt merchant or the politician or the gangster, but in that personnel which daily in every walk of life is designing, constructing, and operating the physical equipment of this Continent.

The foremost specification in the statesmanship of the New America is a knowledge of precision control of all energy-consuming devices. Under the hazardous interference political control of this Price System, technology—drafted into service by the system for the further reduction of physical costs— has developed a methodology of control which is the most sensitive and accurate ever devised by man. It is in use today in every high-tension transmission system and in every high-speed, continuous straight-line production system.

It is the only system that can be extended to give a balanced-load control of all Continental operations. It is the only system that has as its inherent, impersonal objective the satisfaction of the wants of man. It cannot be operated by morons, nor by an undisciplined, unorganized mob, nor by sincere self-seekers wishing to do someone else good for their own betterment.

The balanced-load system of Continental control cannot be bribed or gypped, and personal favoritism doesn't count in its operation: being somebody's son or brother-in-law won't get you anywhere. Personal influence under this system will be of no use except as an amusing pastime. The success of the individual under such a Continental system will not be gauged by his bank account, his bonds, or the pleasing personality of his Arrow-collar appearance, or his nicety in rendering Emily Post amenities. The success of the individual will be determined solely by his capacity for competent functioning in phase with the balanced-load operation.

Discipline may be defined as that conditioning of an organism, whether consciously or unknowingly acquired, which is prerequisite to any form of behavior other than the simple responses set off by innate instincts. Some degree of discipline is therefore essential to the carrying out of virtually any conceivable human objective.

The unique character of America's present and most probable future physical state has laid down the specifications for social operations which will have to be adopted when the Price System shall have become inoperable. It has been shown that the design of the Organization known as Technocracy Inc. is in turn laid down by the advance requirements of those operating specifications. The problem of applying science to the problems of human society is here undertaken as 'a culmination of the unidirectional progression of all the divisions of science'—physics, chemistry, biophysics, geophysics, astro-physics, electro-mechanics, etc.—'into the science of social phenomena.' Technocracy may correctly be called Social Engineering. Similarly it has been shown that the character of the job in hand specifies certain requirements of conditioning on the part of all individuals preparing to carry it out, over and above that great range of useful abilities that members by and large already possess.

From this it follows that Technocratic discipline consists of acquiring certain functional capacities. These are, briefly, a degree of proficiency in applying a scientific procedure, in conjunction with appropriate available scientific knowledge, in the solution of problems encountered; the capacity to carry out the work of any one or more of the functions of the Organization as outlined in 'By-Laws and General Regulations'; and the capacity to function 'in phase' with the functioning of the Organization as a whole—that capacity which is acquired through understanding of the Organization's operating characteristics as well as one's own, as they are found to exist, whether considered as a whole or in detail.

In the Introduction to the Technocracy 'Study Course' certain 'tools of the mind' are provided and the correct use of language of scientific procedure is indicated. Knowledge is received, recorded, and conveyed only by means of defined terms; and then only in the form of verifiable facts.

A clear idea of the extent to which language is commonly misused may be obtained from Hayakawa's book 'Language in Action' [Harcourt Brace & Co.]. Many potentially useful words have been rendered, by constant popular misuse, practically useless for any scientific purpose. For example, words like 'dictator,' 'freedom,' 'justice,' 'regimentation' have acquired, through reckless or unscrupulous use, connotations so loaded with emotional prejudice that they are almost useless for any purpose except starting an uproar. It is here warned that the word 'discipline' itself is so often misused that it tends to suggest ridiculous notions of an ironpants authoritarianism or of grisly punishment.

As the scientific method cannot afford to confuse issues with idle arguments, so Technocracy does not and by nature cannot indulge in arbitration by personal authority. Decisions arrive from examination of the facts. Such a discipline obviously cannot be enforced by penalty, and in Technocracy 'punitive' discipline does not exist. All Technocrats, however, learn to take orders as well as to give them.

Self-discipline

Technocratic discipline, then, is essentially self-discipline. The problem is quite simple; but it should not be inferred from this that such self-imposed discipline is in practice quite easy. Such a conclusion would be merely another misuse of words, for it can be quite difficult.

The 'Study Course' itself is a collection of facts, arranged in an orderly manner, and summarized in a scientific manner as laws or tendencies, or projected as statements of probability. Examination of the course should proceed in a spirit of analytical, critical inquiry—a spirit which may be kept alive by constant challenge with the question: 'What has this fact, or series of facts, to do with North America's social problem?' The social significance of the facts is thereby highlighted, and the significant relationships with other facts easily seen—with practice. As this critical approach becomes by constant use a habit of mind, it will be extended to the student's inquiries into wider fields—the scientific source-books of the Technocracy 'Study Course' will be scrutinized carefully and other books, magazines, and newspapers will be analyzed objectively.

Technocracy's findings are presented to the public as known and verifiable facts. In accordance with such a scientific procedure, emotionalization is not indulged in. The situation as it develops provides a grim show—one can rave insanely to Heaven about it, but there is no future in that!

The antics of the prominent supporters of any and all the institutions of scarcity in the face of North America's great emergent need are indeed contemptible; but if the ironic character of the situation is understood, it may be viewed as high comedy. Since we are paying the price, we may as well have the fun! Too, the ironic wisecrack has long been used as a very effective weapon. It produces somewhat the effect of the impact of a snowball upon a shiny silk hat. In this twentieth century does any wearer of a high silk hat deserve to look anything other than ludicrous? Much of our social big-shotitis, our stuffed-shirtism, our idolization of the enterprising individual, is, to use the figure, an idolatry of a spiritual silk hat.

Conditioning from the Cradle

From the outset the fact must be faced that our previous conditioning has been, virtually from the cradle, a subjection to the malpractices, the frustrations, the wishful concepts, the 'vicious virtues,' the noises and the stenches, the over-prevalent sexual disharmonies and their resultant emotional disorders, the insecurity, the foods ill-prepared and 'made to sell,' the fears and resentments, and their emotional compensations, the superstitions, and the physical privations of this Price System. Whether known or unrecognized, whether approved or condemned, whether idolatrized as ultimate good or anathematized as evil, these factors constitute the disciplines of scarcity. Philip Wylie in his book 'Generation of Vipers' [Farrar & Rinehart] lists many types of resulting twists in human behavior rather dramatically, but seems to be only partly aware of the causes and correspondingly vague about the cure: he refers to them as spiritual faults and moral wants, but this is a moralizer's classification of symptoms and not a scientific diagnosis.

Minor emotional aberrations and tantrums are of such common occurrence that they are usually accepted as healthy human behavior, and pass unnoticed. Macpherson Lawrie in his book 'Nature Hits Back' [Methuen] states that recognized cases of insanity receive treatment, inadequate though that treatment may be, out of all proportion to the ratio of their collective suffering in the vast sum total of human misery resulting from mental disorder. The great problem is the man on the street and his 'human' incompetence arising from emotional stresses that are unrecognized, usually unseen. Nevertheless the vague fear or anxiety, the unexplained feeling of depression or despondency, the lethargy and fatigue and ennui, of the man or woman in the street, are the mild neurasthenia, the undeveloped prototypes of the plainly recognized insanities of agitation, panic, and desperation without tangible cause, the melancholia, or the helpless stupor. The fact must be faced that 'the insane are a lot like the rest of us, only more so!' If the social factors that produce continuous emotional strain continue to operate, as in the past, with ever-increasing intensity, they are quite capable of wrecking our nations without any help from economic or military developments.

Punishment

The educational processes of this Price System are based upon the revered disciplinary practices of compulsion, pretension, intimidation, and prohibition. The punishment fits the crime—so well in fact, that the result is normally an enhancement of the emotional sickness or material want which produced the crime.

The first generation of New Americans will exhibit behavior patterns profoundly different: their conditioning will be carried out as one of the elements of 'a clean, hard, bright design for living that will be the glory of all the ages.' It is indeed questionable whether or not we shall be able to understand much about these children of ours. Their conditioning would be admirably adapted to the carrying out of the task we now undertake—but let us admit that ours is no better than it should be!

Let us realize that to function 'in phase,' to maintain a spirit of cheerful endeavor in the face of frequent cause for discouragement, to get along with people and to tolerate the personal peculiarities of other victims of Price System conditions even as our own are also tolerated, to resolutely refer all questions to the facts involved and to the requirements of the job, to refrain from the prevalent malodorous habits of indulging in opinions, personalities, gossip, loose criticism, and argument, is unlikely to be easy at the outset. But it will come with constant practice.

When these malodorous habits are indulged, the indulgence constitutes sabotage. If the effects upon the carrying out of Technocracy's job are serious, it must be accepted as final evidence that the victim of the habits is thereby rendered unfit to be a Technocrat.

It should be stated that the possession of a college degree has often hindered the possessor's progress in understanding Technocracy as much as it has helped it. College passmen are steeped in the enervating philosophical atmosphere of intellectual liberalism. To make a flat decision—even to know anything for sure — is considered crude, coarse, and crass. It is an attitude of mind which surmises that everything is for the best somehow—that the enunciation of a few new philosophical principles by 'thinkers' from time to time is enough to guide man's faltering footsteps up the long path to Utopia. 'Intellectual liberals have acquired so much erudition that they are only capable of endless deliberation. All they can do is decide not to decide.' A background of business success often produces a similar effect.

Technocracy's discipline cannot be obtained in any college or university. It cannot be bought with money, even though Technocracy's activities, like any worthwhile pursuit, do cost money as well as time. Technocracy has no subsidies or endowments; it has been built by its members with their own resources. Technocracy has accomplished far more per dollar of investment than any other organization of human beings, past or present. Members have openly stated that the personal development they achieved in Technocracy has been worth many times the cost, even if they never live to see the New America. They should know because their investment of time and money has been above average. This is an education that does not require a college degree or even a high school diploma as prerequisite — it requires only plain citizens of the national entities of North America who are possessed of clean patriotism, loyalty, personal integrity, and a modicum of sense.

—Reprinted from Technocracy Digest
July 1945.

PLASTICS RANKS FOURTH IN U. S. INDUSTRY

Plastics now rank fourth behind steel, lumber and glass as a basic material in construction with sales to the building industry expected to jump from the current $1.2 billion a year to $2 billion by 1966, according to Chemical and Engineering News.

Ninety million pounds of plastics are expected to go into paint—the number one application in the building field—this year, the trade magazine said.

Almost equal amounts will be used for coating wire and for bonding plywood, the publication estimated, while flooring and plastic wall tile and covering will be next in volume.

—New York World Telegram & Sun

WOMEN IN THE TECHNATE

Functional positions will be filled by men or women according to their capabilities and desires, rather than on an arbitrary concept of what constitutes women's work and men's work.

IN ALL countries and in all ages of the past and present, women have been considered, or at least treated as, inferiors to men. In the Technate of the New America women will be the social and economic equals of men.

Biologically, in structure and function, women are different from men, and there is not much that anyone can do to alter that fact. But as social beings there is no technological reason why they should be rated either inferior or superior to men.

Technocracy will provide women equal educational opportunities and obligations with the men. The talents and genius of the women will be cultivated as valuable social assets.

They will also have equal opportunities to train for the various functions of the Technate. Functional positions will be filled by men or women according to their capabilities and desires, rather than on an arbitrary concept of what constitutes women's work and men's work. Occupationally, a woman will have a wide and free choice as to what kind of work she shall do.

Marriage or non-marriage, as such, will in no way affect the functional status of a woman. She will have the obligation of putting in the same amount of time at some socially useful function as the man; this will be one of her duties of citizenship. But she will not also have to do housework and tend children besides. If her job is at other work, housekeeping and child care will be done for her by others who have chosen, and trained for, that type of work. If, however, she prefers to do housework or to tend children, then that will constitute her work for the Technate. One year's leave of absence will be granted her for each child she bears—more if her health requires it. Her rise in the functional system will be accomplished in the same way as that of the man, and on an equal basis.

The woman's income will be the same as that of the man. Furthermore, it will be independent of the income of any man. She alone can use it to purchase the things that she desires. No man can in any way take any of it away from her, nor be able to use any of it for himself. Also a woman will in no way be able to appropriate the income of any man. There will be no economic reason why a woman shall not have the goods and services she wants when she wants them.

Men and women, being economically independent of each other, will be attracted and held to one another only by bonds of affection. Only by making oneself acceptable to the desired member of the other sex can one obtain or hold a mate. This will undoubtedly result in a great advance in the arts of social grace and character development. The mere possession of wealth cannot then make up for what one lacks in personal and social graces.

Children will not be an economic burden on their parents. The Technate will provide for their needs and care. Thus parents will not be restricted in the number of children they have by economic hardships which accompany children today. Nor will the mother be burdened with routine care of the children. Much or all of the child care will be done by experts trained for that job as their service in the Technate.

This does not mean, however, that children will be taken away from their parents, for Technocracy proposes no radical change in the moral and social customs of the people. Any such change that comes will be the result of gradual evolution. It means rather that children will be cared for by the Technate to whatever extent the parents desire. In other words, the parents will choose the times and conditions that they will be with their children. And weary, overworked mothers will be no more.

With functionally designed houses to live in, living will be easy and delightful. For, houses will then be tools for better living, not devices for the enslavement of woman as they are today. Think how pleasant a house would be to a woman if she had no sweeping or dusting to do, no clothes to wash, no meals to cook or piles of dishes to clean. Air-conditioned, automatic temperature and humidity control; healthful, flourescent lighting;

sound, fire, dust and vibration proof—these are some of the features of the new houses proposed by Technocracy. When engineers rather than architects design our houses, we can live in them and not be slaves working for them.

All women in the Technate of America will have that standard of living, leisure, and comfort which only a very few today have the purchasing power to afford and enjoy.

Technocracy salutes the women of North America and invites them to participate in the progression to the New America.

—Reprinted from Northwest Technocrat
November 1941.

TREACHERY AT THE TOP

Washington, D.C. — Politicians, not scientists must run the country, but they need to understand science to do it.

This is the opinion of Dr. George R. Harrison, Dean of Science at Massachusetts Institute of Technology. Speaking at the M.I.T. Regional Conference at the Shoreham Hotel, he said:

'Despite the increasing importance of science to human welfare, scientists will not be the leaders of the America of tomorrow except as advisors. Scientists are trained specifically to avoid compromise among conflicting opinions, and to search for facts. The very essence of statesmanship is arrival at agreement when opinions are conflicting.

'If our nation is to survive and to remain free, our leaders will be statesmen and politicians who have a much better understanding of the background, the aims, the methods, the potentialities, and the limitations of science and scientists.

'In a democracy we obtain in general only leaders of the quality we deserve, and our need for new types of administrators points up the need for an enlightened citizenry, a larger proportion of which is able to meet the higher intellectual requirements of an atomic age.'

The social sciences and humanities, as well as science, need emphasis, Dean Harrison said, but he asserted they should be related to science. He said:

'Thus we need not only to educate more and better scientists, but to prepare the voters of tomorrow to understand the new world picture which science is revealing and has helped, willy-nilly, to produce. . .

'Social scientists and other humanists will be needed in the new age as never before, but they should be more active in increasing their awareness of the dawn of this new age.'

—From the Office of Public Relations,
Massachusetts Institute of Technology

[In view of the above statements by an alleged leader of science, the following quotations from Technocracy articles are of interest:]

It is none too soon for the scientists of America to take over the making of national policy and social decisions. [In this context, let the term 'scientists' include technologists and engineers.] Let them tolerate no more nonsense about social policy and management requiring talents not found among scientists . . . It is a crass absurdity for a scientist to advise a politician. The two do not live in the same world of concepts . . . Now let us consider the question, how much of a say should scientists have in the determination of social policy and action? It is our contention that they should have ALL the say. They are the only ones qualified for the job.' [The Northwest Technocrat, April 1957.]

'We need not look with much optimism to the initiative arising from the leadership of the presently organized bodies of scientists in the United States. These are already too thoroughly dominated by stooges for the status quo of politics, ecclesiasticism, and commerce. This leadership lacks both the audacity and the concepts which are required [as well as the integrity]; and the organizations are too vulnerable to sabotage from within. The chief interference is the insistence of the administrative leaders of the science groups [and institutions] that the place of scientists in the society is merely that of advisers to the political policy-makers and commercial enterprisers. Such negation of the role of scientists in human affairs, we hold, is not becoming to scientists.' [The Technocrat, December 1957.]

Technocracy holds, further, that such advocacy by administrators of science groups or institutions is more than mere conduct unbecoming a scientist; it is treachery and sabotage from within — from the top. It is high time that the scientists began cleaning their ranks of the termites.

SOCIAL MOVEMENT FOR SCIENCE

Science is coming to the fore, and with it is coming Technocracy, for Technocracy is science in social action.

TWENTY-FIVE YEARS AGO Technocracy was incorporated under the laws of the State of New York as a research-educational Organization with the purpose of informing North Americans of their impending reckoning with social change, and to organize them to meet the greatest of all challenges to any society in the annals of recorded history.

Technocracy's original statement of the technological problem on this Continent and the method by which it will be solved is today being vindicated by events. Science, as that method, is coming to the fore; and with it is coming Technocracy, for Technocracy is science in social action.

Every social movement that has had even the appearance of social consciousness has either disappeared from the North American scene or has demonstrated beyond any question its ineffectiveness in dealing with the social situation on this Continent. Technocracy has survived because it is in tune with this Age of Science and what science means to this civilization. It is therefore quite natural that Technocracy Inc. should be in the vanguard of the coming social movement for science.

Historically, social movements for change of any kind have never been pleasant affairs. Social movements are born of a social ferment which is generated by a compound of fears and deprivations. Only when conditions have become so intolerable as to threaten their very lives have the multitudes moved for a cause. Then, almost invariably, the movement has been chaotic, destructive and bloody, an animal expression to survive, a welling up of a last desperate surge of energy to continue to live mixed with a blind anger for revenge against the personalities with whom the collective discomfort is identified. Aside from the fact that Technocracy would not care to see a destructive social revolution grip North America, the technological perspective of the Organization compels one to conclude that North America's technology—the means whereby we live—would be dangerously impaired, if not paralyzed, by such action. This realization is a central reason for Technocracy's existence as an Organization. It is not nearly enough to have the answer to our collective problem. People have to be told about it. The more the citizens of this Continent know about Technocracy, the less inclined they will be to take destructive action or to be stampeded into headlong flight to their own demise.

Over a period of years, pressure has been building up in the antiquated social system of United States for social change. Nowhere in the world has technology made a greater impact and yet been less appreciated. There have developed, with almost no recognition, the predisposing conditions for internal disintegration. There is a great percentage of the population of North America who have had an opportunity to witness the entire physical transition from the farm to urban living by ninety percent of the population. The engineering genius of North America, coupled with a wealth of natural resources, produced this transition from a farming society to an industrialized one in the amazingly short time of less than fifty years. The transition was accomplished so quickly that the social concepts of its participants, such as they are, have not been seriously disturbed, and the probable social effects of this change escaped all but a few. Some have ventured to observe that the present society of North America may be one of the most short-lived in history, among the major ones. If the present low level of social consciousness continues, Technocracy shall be forced to agree with this observation, for, without realizing it, the citizens of this Continent are almost face to face with the most explosive social situation with which any people have ever been compelled to deal.

Unless one is accustomed to thinking in terms of facts and to observing trends, it is apt to be inconceivable to him that the civilization of which he is a part could fall to pieces, and perhaps quite suddenly, from internal problems. He is probably impressed by the massiveness of the Price System. He does not realize that this massiveness is an illusion of strength, based upon a promise, not certainty. When analyzed to its common denominator, the Price System rests upon confidence of the sucker, which is generated by the successful chiseler. At this moment in our history, this confidence of the sucker is about all that stands between this civilization and chaos. If the Price System fails to pay off enough for the sucker to keep him from starving, he will be done with it and will be ready and willing to do anything to get even with it. This is the extent of the sucker's convictions in favor of the Price System and 'free enterprise.'

North America Unique

Under a Price System, as we know, individuals exchange their time, sweat and skills in return for a paycheck with which they buy some of the things that they need. In the past, the price of a product reflected, predominantly, the investment of man-hours required to provide that product, and to a lesser extent, the cost of materials required to make it and the merchant's profit from its sale. For thousands of years scarcity, imposed by human limits of production of goods and services, has forced the use of a barter or Price System, and still does for practically the entire world. The only exception is North America. This Continent has learned how to produce an abundance of goods and services by using technology. However, technology and human toil do not mix, which is why we now are hearing so much about the displacement of workers by technology. It is finally being admitted that machines do not make jobs, but, in fact, are taking over from workers both repetitive and complicated tasks in industries of almost all descriptions. This is one of the basic trends that is destroying the Price System. Technologically produced abundance is engulfing the Price System, which is designed to operate only under conditions of scarcity. It is not a question of whether the Price System will collapse, but when!

For several decades chiseling ingenuity and ill-disguised viciousness have been use to maintain the Price System in the midst of mounting abundance. Time payments and debt in many other forms extended the life of the Price System for a few years after World War I. When private debt creation failed to sustain the system and the country plunged into the Great Depression, the federal government got into the act. The financing of business operations with public money, passed around by the government, proved to be a failure by 1940. World War II put most able bodied citizens either back to work or in the armed forces. A succession of war activities and preparations for war centering around the Korean 'episode' and the 'cold war' with Russia have kept the Price System alive. It would be no compliment to the collective mentality of North Americans for one to attempt to excuse it for endorsing the treasonous acts of the Price System against this Continent, such as the useless and pointless entry into wars and the deliberately calculated waste of resources in production of shoddy goods, by trying to point out that people were coerced by political witch hunts and generally don't know any better. The facts indicate that in past years millions of people have been interested in Technocracy but were dis-inclined to do anything about it at a time when a transition into a new social system, as envisioned by Technocracy, could have been accomplished with much less difficulty than may be experienced now. It can hardly be denied that North Americans have played the Price System for all that they could get out of it. Today, as the Price System reels and staggers from the effects of abundance, as unemployment mounts and as industry drops to lower percentage levels of production than in the depression of 1921, people do not want to accept what they see happening. They hope and pray fervently that developing conditions will go away and that THEY will make out all right.

In Real Trouble

It must soon strike home to each intelligent citizen of this Continent that he and his country are in real trouble from which there is no escape nor retreat. He must soon realize that he can expect to find no assistance from conventional sources such as his political representation in solving the problems before North America. It must be recognized by him that he must gear his efforts with others in Technocracy Inc. for his own and everyone else's benefit.

The first order of business is to bring Technocracy to the attention of every last resident of this Continent, if possible, and to organize them into effective support for Technocracy's objectives. If that minority of citizens who are capable of contributing to the giant task of organizing the ranks of their fellow men and women respond in time, the transitional phase from the Price System to a Technocracy still could be quite orderly. Of course, this observation bars the event of a sudden disintegration of the Price System within the next few months, and must assume development of a widespread active interest in Technocracy from this time on to the end of the Price System. A movement to join Technocracy by countless thousands of individuals in United States and Canada who are favorable to Technocracy would so strengthen the Organization and would command such great attention that North America would soon be well on the way to the realization of a Technate. Adverse social conditions under the Price System will, most assuredly, force the masses of people to move; and they will move toward, and with, that which has an answer to their problems, and lets them know about it. Thus there can develop in the most desirable way a social movement for science.

Points that cannot be stressed too strongly are: [1] Pressure of conditions produces a social movement, not the personalities connected with it; and [2] organized **minorities,** never majorities, use the circumstances to gain support for their ideas. Technocracy takes the position that it is far more preferable for a well-trained minority to present Technocracy than for an untrained majority to attempt to do so. In fact, in the latter case, it could not be done any more than the majority of people could become conversant with calculus. However, this does not prevent everyone from thinking that Technocracy, or calculus, is a good thing. The point, of course, is that it takes time to understand Technocracy and to be an effective instrument in assisting the Organization to present the objectives of Technocracy. The nature of Technocracy, being scientific, requires that its information be directed to a level of intellect and social consciousness that is not common to the majority of citizens of North America.

Technocracy is genuinely alarmed at the apparent indifference of the supposedly intellectually capable minority of this Continent regarding social circumstances with which it must deal. It appears that something worse than mere complacency is affecting this minority; it looks more and more like degeneracy. In the last stages of the Old Roman Empire, after it had conquered the known world of that day and ceased to have an objective, bread and circuses were the order of the day. Thousands of human slaves were brought into Rome from other countries and these displaced the farmers and craftsmen of that day, forcing them to move to the city and to live on a government dole. To keep them quiet, the people were entertained with lavish and barbaric games and displays and great public emphasis was given to sex. The point of this reference to Old Rome is that there is more than a little similarity between the attitudes of the Romans and the attitude of North Americans, and some of the social circumstances.

North Americans are being released from their toil by technology rather than by human slaves. But the net effect is similar. More time to be spent under the Price System uselessly is being made available to a growing number of people on this Continent. Millions of citizens of United States and Canada are living on either a partial or full dole which seldom is enough to buy what they need but is sufficient to keep them from starving for awhile, and leaves them with plenty of time to do nothing significant for themselves or for anyone else. Students of human intelligence are alarmed by the apparent decline of intelligence on this Continent in the past couple of decades. The total effect of the encouragement of degeneracy by the Price System is destroying that spark in the human character that gives one the will to fight for social progress. By reference to 'fight' we do not mean breaking open someone's head. Nearly anyone can do that. We mean the application of one's intelligence to understand problems and to plan a course of action, or at least follow one, to a solution to the problems. Implicit of intelligent action is the innate ability to take a stand and refuse to compromise or to acquiesce to pressure. It's this kind of 'stuff' of character that has pushed the human race forward. North America is badly in need of a 'renaissance' of a will to survive. There can be no future for this Continent without a Continent-wide will to survive.

It is not only a matter of solving acutely serious problems that threaten mass survival on this Continent. After making the social transition into a technological method of governance, the task of rebuilding this civilization must be undertaken. Again, there must be forthcoming from the people of this Continent the will to move forward to objectives designed for the Technate, such as constructing a new transportation system, rehousing the entire population to provide decent living quarters for them, building a Continental Hydrology system for power and other purposes, re-designing the educational system to meet the requirements of the Age of Science, setting up an adequate defense system for the Continent and starting many other sizeable tasks. Before and after the transition, the success of this movement for scientific social operation will be determined by the extent to which the social implications of Technocracy are appreciated. Untiring leadership will be required. North America will not be safely 'out of the woods' of social confusion for quite a period of time, even after jumping the first hurdle from the Price System to Technocracy, because of the severe damage to the social outlook of North Americans inflicted on them by the Price System.

For all of the somewhat discouraging evidence to the contrary, Technocracy knows that North America has latent qualities of greatness, and in a sufficient amount to ensure an enduring brilliance as a civilization. Technocracy contends that whatever any other civilization has achieved is only a poor example of what North Americans can do when they get organized and start moving. Technocracy has great confidence in North America. It is time that North America expressed its confidence in Technocracy. North Americans, move for a social objective worthy of your support. Join Technocracy now!

—Harry Briggs, 12247-1

Post Office Studying Facsimile Transmission

Washington — Worried about that last-minute letter not arriving in time because of the Christmas rush? How would you like to have it carried from coast to coast in seconds—for as little as 25 cents?

It's technically possible. By a process called facsimile mail, an exact copy of a letter can be transmitted electronically and reproduced at its destination ready for delivery to the addressee in less than five minutes.

Unlike V-mail of World War II, facsimile makes no photograph or film record of the letter. And unlike teletyped messages, facsimile requires no keyboard operator. Instead, it transmits by converting typed, written, printed or pictorial matter into electrical impulses. Facsimile needs only a sending and receiving machine and a 3000-cycle telegraph, telephone or radio circuit to carry the electrical impulses.

To transmit mail by facsimile, letters would be placed around a cylindrical drum. As the drum revolved, photoelectric cells would scan the material and convert it into electrical impulses sent out on a wire or wireless circuit. Minutes later the letter would be reproduced on a machine at a receiving point miles away.

The idea for this revolutionary type of mail service has been bubbling around in Washington for several years. Late in 1954, President Eisenhower appointed a committee to look into it—the cabinet committee on telecommunication, policy and organization, headed by Dr. Arthur Flemming, at that time chief of the office of defense mobilization. Though the committee's report was not released, it is understood to have recommended that the post office department make use of facsimile mail.

Unfortunately, the report came at an inopportune time: the president was recovering from his heart attack and some important business had to be postponed.

In spite of this, the idea of letters by electronics has been percolating—slowly—in the post office's research and engineering section. In October, 1956, Postmaster General Art E. Summerfield, in a speech before the nation's postmasters, made this statement:

"We are shortly starting a study of the electronic transmission of facsimile messages which could mean the almost instantaneous relaying of a letter across the continent."

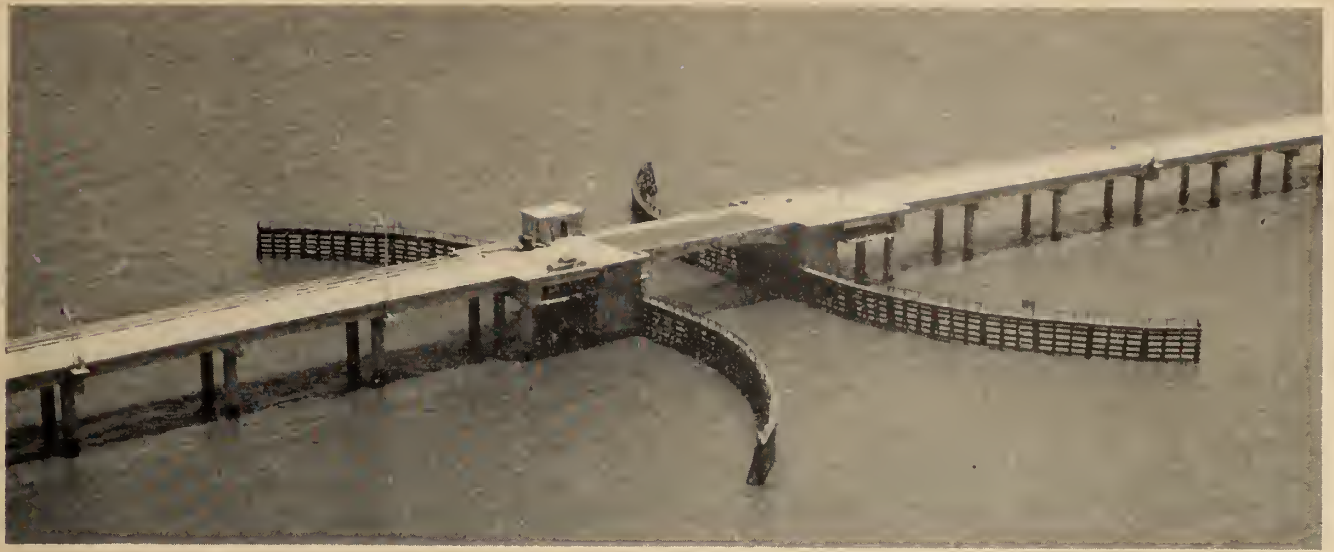
The research and engineering division confirms that it is "working on the idea." But so far, it has not gone beyond the "exploratory stage." Engineers have discussed the method with transmission companies but no actual experiment has been set up in the postal system and no estimate of costs is available.

In some branches of the government, facsimile is a reality. From Suitland, Md., the weather bureau sends weather maps all over the country. Since World War II, facsimile equipment has been available in the armed forces.

Both army and air force have experimented with the transmission of completed forms and letters as a means of getting official communication through channels. From the Pentagon, the air force transmits to Denver.

In private business, facsimile has been a workaday wonder for about 15 years. In industry, it transmits formulae, blueprints and interoffice memos. Banks like it for transfer of funds and verifying signatures from one branch to another. Airlines employ facsimile to transfer reservations between cities.

—The Oregonian



One of the two bascule bridges on the Causeway. The bascules are vertical-lift bridges designed to facilitate heavy marine traffic. Three smaller navigational humps are provided for smaller craft. The bascules are located eight miles from either shore. They provide 75-foot clearance between fenders, with unlimited vertical clearance in the open position.

World's Longest Bridge

The 24-mile-long Lake Pontchartrain Causeway, the world's longest bridge, has become one of the most popular attractions for visitors to New Orleans since it was opened to traffic more than a year ago.

In that time, automobiles from every state have passed over the Causeway either to take advantage of the most direct north-south route into New Orleans or simply for a ride on one of the nation's unique bridges, according to John J. Holtgreve, general manager for the structure.

Holtgreve said that more than 1,800,000 vehicles had crossed the Causeway since it was dedicated on August 30, 1956.

The Causeway and 11 miles of four-lane divided approaches serve as a north-south throughway route into the metropolitan New Orleans area. It connects St. Tammany Parish [county], a resort area on the north shore of the lake, with Jefferson Parish, adjoining the city.

The Causeway and approaches constitute the Greater New Orleans Expressway, built at a cost of $51,000,000.

Although popularly called a "Causeway," because for years there had been talk of throwing an earthen embankment across 610-square-mile Lake Pontchartrain to connect New Orleans with the vacation spots to the north, the structure actually is a true bridge which rests on more than 4500 92-foot concrete piles. In construction components of the bridge were precast and prestressed in steel forms at the plant site. They were then assembled, loaded on barges and towed to construction points on the lake.

The yard and plant in which all component parts of the bridge were cast and assembled. Mass production methods were developed in the yard to turn out prefabricated, steel-reinforced concrete parts for the Causeway. Photos courtesy Bauerlein, Inc.

DEVELOPING TRENDS

FACTORY BUILT IN 22 HOURS

ABILENE, Kansas—Equipment troubles slowed the process, but only 22 working hours were needed over the weekend to erect an aluminum factory building by using two big balloons.

Work was completed on the domed, no-beam structure one recent morning. The builders had hoped to finish it in less than 24 hours after starting. It is about five stories high.

The huge balloons were inflated so they lifted diamond-shaped aluminum panels into place. When all panels were riveted together the balloons were deflated and withdrawn.

The giant upside down bowl will house the Fi-Fo Conveyor Company, a manufacturer of pneumatic conveyor equipment. Fi-Fo Construction Company built the plant. Both firms are divisions of Vacu-Blast Company, Inc., Belmont, California.

Harrison Beardsley, a spokesman for Kaiser Aluminum Company, said the structure has 16,500 square feet of floor space and cost about $5.50 a square foot—or about $100,000.

—Associated Press

'RAILVAN' IS RIVAL TO 'PIGGYBACKING'

DETROIT—Two combination truck-trailer-rail cars coupled to the rear of a Chesapeake & Ohio passenger train carried mail from here to Grand Rapids, Mich., recently.

Built by "Chessie" shopmen, the 'railvans,' as they're called, have two sets of wheels—one rubber tired and one flanged—that permit them to be operated on the rails or hauled over streets and highways by ordinary tractors.

C. & O. officials said this is their "answer to piggybacking," pointing out that it eliminates the need for flat cars to carry the trailers.

The "railvans" were loaded at the post office, then driven to the railroad. "We plan to put these vans into use on a regular basis as soon as the C. & O. can provide enough of them," said E. G. Seidle, assistant Postmaster General for transportation.

—Labor

—Portal to portal with only one loading.

NEW MACHINE TYPES, CALCULATES, 'THINKS'

NEW YORK—International Business Machines Corp. unveiled the latest in its stable of robots.

It is an electronic typing calculator. The new machine adds, subtracts, multiplies, rounds off, types, carries totals, computes taxes, subtracts discounts, positions, decimals, justifies multi-digit numbers and types results.

Because it has a built in "memory," the calculator also totals and then types out the total gross sales, taxes, shipping charges and invoice totals daily.

According to IBM people, the new machine will increase productivity in the invoice department from 20 to 40 per cent, depending upon the use to which it is put. According to the company the full scope of office automation just begins to become apparent by the development of the machine.

Production of the machine is now under way in the Lexington, Ky., plant of the Electric Typewriter Division of IBM.

The new machine consists of an electric typewriter, which can be used as such, a 10-key companion keyboard, a magnetic core "memory" and a program-reading device.

On the calculator keyboard the operator—the company says any typist can learn to operate it in minutes—feeds in the invoice figures. By pressing a bar, the calculator goes to work and transmits the information to the typewriter which automatically reproduces it on paper forms.

—Newark Evening News

—Another step in a trend—the machines eliminate jobs, thereby cutting purchasing power.

VENDING-MACHINE SALES

Sales of the automatic vending machine industry in 1957 topped the $2,000,000,000 mark for the first time in history and the industry expects the boom to continue in 1958, according to the National Automatic Merchandising Association.

The number of machines in operation during 1957 increased to 3,500,000 from 3,200,000 in 1956.

The most significant development was in the vending of hot foods. Last year 6,000 machines dispensed an estimated $2,000,000 in hot foods. In 1957 the number of machines more than doubled to 13,500 and sales tripled to $6,600,000.

R. Z. Greene, president of Rowe Manufacturing Company, predicted the development of a completely "robot restaurant" by 1960.

The restaurant, he said, will be capable "of delivering complete on-a-plate meals—from frozen storage to hot ready-to-eat stage—in less than twenty seconds at the drop of a coin."

Another industry official, Elmer F. Pierson, chairman of Vendo Company, said "low profit margins, increased competition and an urgent need to develop new markets will result in many manufacturers of consumer products turning to vending in 1958 . . ."

—New York Herald Tribune

—But what will the waiter do then, poor thing?

LINES OF JOBLESS

From many cities come reports of long lines of unemployed at U. S. Employment Service offices—lines which, in some instances, were described as reminiscent of the depression 1930s. However, most of them were applying for unemployment insurance, a New Deal reform which didn't exist in the early 1930s. In Cleveland and Baltimore, daily papers carried pictures showing columns of unemployed stretching around a block —and similar scenes occurred in many other cities.

NATIONAL DEFENSE?

WASHINGTON — Gen. Curtis LeMay disclosed recently that planes of the Strategic Air Command, the nation's main striking force, were grounded for five weeks last summer for lack of money to buy gasoline.

—Newark Star Ledger

Your swept-wing Dodge may well be grounded soon too —for the same reason!

SCIENTIFIC DATA SAID IN JUMBLE

WASHINGTON—The first attempt ever made in the country to bring order out of chaos in the field of scientific literature will get under way in Philadelphia.

This is the problem: Masses of literature dealing with every field of basic and applied science roll off the presses every month. For all practical purposes it then disappears, as far as most scientists are concerned. Less than 30 per cent of it is indexed, and about 10 per cent of this is duplication.

If a chemist, for instacne, begins moving into the field of bio-chemistry, it is virtually impossible for him to lay his hands on the latest literature on developments in biology. This is true not only of this country's production of scientific literature, but that which is printed abroad as well.

This has long been a source of worry to American scientists, and to the various abstracting organizations now working in the different scientific fields. Little was done, however, until the Russians fired their first earth-circling satellite into the skies last October.

That brought on a new sense of urgency. G. Miles Conrad, Director of Biological Abstracts, talked up the idea of a confederation of all existing scientific abstracting and indexing services. Then he got the National Science Foundation to underwrite the three-day convention in Philadelphia.

Scientists will debate heatedly as to whether Russia is ahead of the United States in scientific progress, but they're pretty well agreed that Russia is ahead in abstracting and indexing, with its Soviet All-Union Institute of Scientific and Technical Information.

Conrad thinks that, properly organized and supported, the sort of confederation he proposes will provide an information service for American scientists which would be second to none.

A thorough indexing and abstracting service would be a boon to any research scientist—in school or out. The index would tell him the titles of the scientific literature available in whatever field he is interested. He would pick those most likely, then read the abstracts—condensations that summarize the findings of the articles. If he wanted more detailed information, he could get the article itself.

To be most effective, the service would have to include all the world's scientific literature available—a truly formidable project.

—Oregon Journal

—Such a program would be far too useful and beneficial for our politicians to spend money on. They would rather waste it or give it away.

BUDGET FOR ADVERTISING

A record $10,000,000,000 has been budgeted for advertising expenditures this coming year, and the West will get more than its proportionate share, John H. Hoefer, San Francisco, president of the Advertising Associations of the West, said recently.

With about 15 per cent of the nation's population, the 11 western states will get about 20 per cent, or $2,000,000,000, of the advertising money, Hoefer said.

"If you are not advertising, you are working too hard," Hoefer told a luncheon meeting of the Oregon Advertising Club. He said he favors the "sensible, friendly approach — communicating to the customer via the back door," rather than the "shouting" approach in advertising.

He described the agency's role in analyzing the client's product, market and distribution setup, and also discussed the new "interview in depth" method of probing the customer's motivations.

—The Oregonian

—Hey, fellas, no matter how you finagle it you can't sell abundance!

'BEST-DRESSED CESSPOOL'

......President Eisenhower's budget proposal that the Federal government stop helping local governments finance new sewage treatment plants was assailed by two congressmen — Melvin Price (Dem., Ill.) and John A. Blatnik (Dem., Minn.). The latter authored the law, under which more and more polluted rivers are being cleaned up, with Uncle Sam encouraging this by contributing $1 of each $5 cost.

As a shocking example of the needs which would be blocked by Ike's proposal, Blatnik cited the scandalously polluted Potomac River, which flows past Washington's parks and monumental buildings. "Right here in the nation's Capital," he said, "we have the best-dressed cesspool in the country."

Also denouncing the President's proposal, Price told the House that "there are interests which want this crusade for clean streams throttled." Among those interests are big paper and chemical manufacturers who now pour their poisonous wastes into rivers.

If Eisenhower succeeds in crippling the program, Price said, we will have turned back from the forward path we recently began taking after a half-century of watching our rivers and streams become open sewers.

—Labor

Let's remember Eisenhower is merely the spokesman for 'big business.' Who do these upstarts think is running this country?

FARM PEOPLE REAL SURPLUS

WASHINGTON—Congress was told recently that a basic cause of agriculture's troubles is too many farmers.

This in substance was a conclusion drawn by a panel of economists at the opening of a week-long survey of farm pressures by a senate-house economic subcommittee headed by Senator John J. Sparkman, Democrat, Alabama.

Theodore W. Schultz, chairman of the University of Chicago economics department, said agricultural policy "has gone to pieces" because the farm problem "is not what policy makers keep on saying it is."

Schultz said it is not due to too much crop land, too few exports, or lack of farm investment. He also said more "legislative gadgets" won't succeed in preventing surpluses.

"The hard core of the U. S. farm problem is the surplus of human effort committed to farming," Schultz asserted.

"It is this surplus and not the surplus stocks of wheat, corn and cotton that is holding earnings of human effort far below the earnings of comparable human effort in the rest of the economy.

"Moreover, this basic maladjustment has come upon us despite the very large number of farm people who have been leaving our farms."

—Associated Press

OHIO STEEL TOWN HAS BREAD LINE

LORAIN, Ohio—The first bread line since the depression days of the 1930s formed recently at City Hall in this recession-hit steel town, where one of every nine residents is receiving unemployment checks.

Day-old bread contributed by bakeries in the city was passed out to members of the 175 families on the relief rolls and to other families struggling to survive on compensation checks.

In nearby Elyria, relief officials were passing out butter and beans contributed by local suppliers.

—United Press

TEACHING METHODS 300 YEARS OLD

If a 17th Century school teacher were alive today he would find little difficulty teaching mathematics in modern classrooms.

Most mathematical knowledge disseminated in schools today was known 300 years ago. Courses must be gradually attuned to present-day needs.

These points were made recently by Albert E. Meder, Jr., executive director of the Commission on Mathematics for the College Entrance Examination Board, New York, in a talk to about 50 Essex County educators in Glen Ridge High School.

Meder, dean of administration of Rutgers University and a mathematics professor there, told the group that "a new point of view" must be taken toward secondary school college preparatory curriculum to bring about its "modernization, modification, and improvement" and "closer relationship with 20th Century ideas and applications."

He said the college board examinations will be revised gradually to reflect modernization programs formulated by the commission. The commission is in the final stages of preparing a modernized secondary school mathematics curriculum, he said. The program is designed to obviate traditional methods without requiring extensive retraining of teachers.

The commission's program will emphasize teaching the "basic structure" of algebra and place greater emphasis on deductive reasoning. The program will omit solid geometry while incorporating the principles in other courses and will leave all calculus courses to colleges, Meder said.

The new concept in mathematics instruction is to teach the "nature, underlying patterns and structures, regularity, and application of mathematics," he said. "By learning these patterns and structures, mathematics can be applied to problems that have never been met." Students traditionally have been taught primarily only to "manipulate" with mathematics, he declared.

—Newark Evening News

—They had better hurry—America needs straight thinkers now!

REPORT SHOWS PROFITS RISE ONLY FOR BIGGEST CONCERNS

A report on profits of manufacturing corporations in the second quarter of this year, compiled by the Securities and Exchange Commission and the Federal Trade Commission, contains some significant figures. They show that the profits of the biggest corporations rose in comparison with the same period last year, while the profits of smaller companies fell.

Measuring the size of companies by their assets, the report presents the following picture:

Companies with assets over $1 billion, total profits UP 3 per cent. Assets between $250 million and $1 billion, total profits DOWN 3 per cent. Assets between $100 million and $250 million, total profits DOWN 5 per cent. Assets between $1 million and $100 million, total profits DOWN 8 per cent. Assets under $1 million, total profits DOWN 19 per cent.

Thus, the smaller a company, the more its profits fell, while only the super-giants had a profit increase. This clearly illustrates the trend toward bigger and bigger business.

—Labor

—And if these profits are 'saved' through lack of confidence in the system then the downturn becomes a real slide.

MY TWO CENTS WORTH

It looks like another depression is on the way and I don't like it, because the common people have such a hard time of it when there is a depression. The only times we really had prosperity and the people didn't feel like they had to skimp on everything they wanted was when we had a war or just afterward. But it don't look to me like a war is the right answer to the question this time, what with those awful hydrogen bombs and missiles and all that. Too many people would get hurt without it doing much good for business or prosperity.

If we could have a little war way off someplace, where only a few people would get killed while everybody at home would be prosperous, I guess it might be worth it. I'm sure a lot of our young men would be glad to be heroes for prosperity and their mothers would be proud to wear the gold stars they would get. But I suppose those good old days are all over with, along with a lot of other things we used to think was terribly important.

It is awfully sad to see men out of work and their families being chased out of their new homes and the stores all full of things they can't sell while the people go without. It seems so senseless, but I guess you just can't have prosperity without war. I asked Uncle Zeke why we need a war to have prosperity and he said we didn't really. He said the government could just as well spend the same money on construction projects around the country. Besides, we would have something useful to show for it. The trouble with that is, you can't make people buy bonds unless there is a war, and if the government don't sell bonds, they can't pay for the projects.

I'm not so much worried for myself. My home is paid for and I don't try to keep up with the Joneses. But I do feel sorry for all those people who paid high fancy prices for those new homes in suburbia and all the things in them. I guess they just forgot about the last depression or they figured there wouldn't be any more, like Mr. Eisenhower promised them.

In a depression, prices are supposed to go down, but they are still going up; so maybe we don't have a real depression after all. But, gosh, it sure seems like one. Well, I can't do anything about it, and I guess nobody else can either. Mr. Hitler and Tojo stopped our last depression. I wonder who will stop this one?

—Ima Moron

Have You Observed?

. . . **North Americans,** particularly in the U. S., are drifting at an ever faster rate toward a 'norm' of mental imbalance, according to reports of sales of drugs. In 1956 Americans consumed 45 million aspirin tablets daily, used 20 million sleeping pills nightly and gulped down 20 million wake-up pills each day. In 1957 40 million prescriptions for tranquilizers were filled. In addition, 5 million Americans are reported to be confirmed alcoholics. Fifty percent of hospital beds are occupied by mental patients. Gastric ulcers, peptic ulcers, chronic digestive illness and heart attacks are becoming the hallmark of this civilization. This is a part of the price that is being paid for the refusal of North Americans to effect a social adjustment to technological revolution on this Continent. For every day that we delay installing a Technocracy, the price will go higher. The answer lies in nothing short of a fundamental re-design of the entire social control of North America.

. . . **If babies make prosperity,** which is according to economic bedtime stories of the Price System, North Americans ought to be experiencing a 'boom' instead of a 'bust' these days. Population growth of the U. S., at the rate of better than three million per year, indicates that North Americans are hard at work trying to produce prosperity. It appears that fools still are able to make suckers out of most North Americans. But then long ago Technocracy was compelled to conclude that the majority of people on this Continent could not even recognize intelligence when they saw it, not to mention be intelligent.

. . . **With unemployment approaching** six million, it has become a subject of conversation throughout the U. S. There are being advanced some vague suggestions of how unemployment might be kept from increasing at least. However, the 'babies' of past years now are entering the labor market at the rate of 1.2 million per year with a declining prospect of jobs. Depressed economic activity, induced by production of more goods than the Price System can distribute, plus technological advances that are reducing the need for workers, gives a dull outlook for employables in general.

. . . **Collection and disbursement** of public money by the federal government for the benefit of 'free enterprise'. is more important than any other of its functions. This can be appreciated when one realizes that from 1792 to 1951, a span of 159 years, the federal government collected $406 billion. But from 1951 to 1956 the federal government collected $433 billion, thirty-two times the rate of the 1792-1951 period! These huge amounts of money are being dumped into the Price System to keep it 'doped up' and operating. Despite all of this, the economy still is $150 billion short in purchasing power to buy the total capacity of industry to produce. Hence, a developing depression.

. . . **North Americans** have been heard to say, 'We've got to catch up with those Russians,' whatever that means. They don't know where they are going. They could hardly expect to know where the Russians are going. If the Russians have enough scientific momentum to go by North America, how could North America expect to catch up with Russia? The Russians appear to be progressing as the result of basic organization of their skills and resources, and without the interference of chiselers to the extent that the American economy is infested with them. In America there are 102,328 governments [agencies with taxing powers]; and there are more organizations for everything under the sun, perhaps, than anywhere else in the world. How could unity and direction possibly develop from this chaos of conflicting and uncoordinated interests?

. . . **The United States** has been so busy spinning its wheels in one place to keep the Price System operating and to maintain its illusion of success that it has gutted its once rich resources in a grandiose splurge of debt creation, leaving Continental United States a 'have not' nation. Now all of the cumulative social, economic and physical problems are closing in for 'the kill' on this civilization. At some point along the way, very soon, every last North American has got to realize that he is engaged in a fight for his life. Technocracy has the organizing vehicle to guide the coming social movement. Will it be for a technological social operation; or will North Americans damn this civilization through their own stupidity? If you're not a Technocrat, you've waited long enough. How about showing some fight?

—12247-1

TECHNOCRACY IN THE FIELD

The Members of Technocracy apply their efforts in various ways to bring to the attention of all North Americans the significance of the present social trends and the need for a technological solution to the problems which arise out of them. They realize that only through their activities and efforts is the public made aware of Technocracy's Program.

Technocracy Publications

INCLUDED in the many activities of the Organization are the printing and distribution of magazines, pamphlets, and leaflets for the dissemination of factual information about our social structure. Technocracy carries on its own training of research personnel, writers, and editors, and these members devote most of their spare time to this important work.

Of the magazines, obtainable either singly or by subscription, the Field Magazines are the most informative on current news and trends, and offer the greatest variation of factual material to their readers. In them can be found many items discussing technological trends and their social impact on this Continent, factual and enlightening news on international events, important information on the present national dilemma of our political and business leaders, and news of Technocratic activities in Areas throughout the Continent. Published in different sections of the country, they are: this publication, The Northwest Technocrat, Seattle, Wash.; Technocracy Digest, Vancouver, British Columbia; The Technocrat, Los Angeles, California. As quarterlies they are rotated in such a manner that one appears each month of the year. One subscription to all three gives the widest coverage in Technocratic information.

Besides the Field Magazines, the Official Gray Pamphlets are made available at all Section Headquarters, Public Meetings, and by individual distribution. Packed with facts on the international scene, the national problems, and the long-term trends in effect both abroad and here on this Continent, they offer several facets of basic Technocracy to the reader.

The monthly research bulletin, Technocratic Trendevents, published by the Research Staff of The Technocrat Magazine in Los Angeles, California, covers current events with a bold analysis, of what goes on behind the scenes or is covered up by the so-called 'free press' of the Price System.

Technocracy Briefs, a one-sheet quarterly, condenses some of the best of Technocracy's articles for those who want to catch their information 'on the fly.' They also are excellent contact material for members to give to persons inquiring about Technocracy for the first time as they encompass a wide variety of subjects.

Technocracy Publications accept no paid advertising and therefore need make no compromise with the Price System. They present accurate analyses of the social trends and conditions on this Continent and project a bold synthesis for the future — for an era of abundance, security, and freedom from toil — without influence from any outside pressure group or vested interest. These Publications are essential reading for every serious-minded North American.

TOURS

During March, Howard Scott, Director-in-Chief of Technocracy, Inc., toured the Great Lakes Area. His itinerary included Chicago, Detroit, Cleveland, Kent, and Akron where both public and membership meetings were held. Because reports from this tour were not available at this writing, full coverage will be given in the July issue.

Technocracy Speakers in many instances use their vacation periods to address public meetings in various parts of the Continent. Such a tour took place in February, during which Authorized Speaker Harry Briggs, of Section 1, Regional Division 12247, Everett, Washington, spoke in California at six public meetings, two membership meetings, before a college faculty and to a Kiwanis Club. Public response was an indication of growing concern over social and physical trends in North America. A most encouraging aspect of the tour was the active interest of youth in these meetings.

Peace or Dulles

Since the advent of the Korean War, the symbol of Americanism, with particular reference to foreign relations diplomacy, has been Mr. John Foster Dulles. It so happens that Mr. Dulles is sour on peace, is stubborn and intransigent about anything that even suggests peace; but he is all eager and willing when it comes to anything dealing with war, threat of war, or an arms race. At least, one must reach such a conclusion on the basis of his behavior. Just now, he is being especially stubborn about a summit conference with the Russians. We can only surmise that he is deathly afraid that it might lead to some degree of 'modus vivendi' with the Russians this side of total war.

In 1950, it was John Foster Dulles whom President Truman sent to Korea to look into the situation there; and almost before Mr. Dulles could get out of Korea the war was on. [This evidently so impressed the then Secretary of State, Dean Acheson, that he has tried to be an imitation Dulles ever since; but he has not demonstrated the same flair for the role of unrelenting belligerence that comes so naturally to Mr. Dulles.]

Of course, John Foster Dulles is not alone in this American Crusade against peace. There are others in high places who back him all the way, and still many others who obviously wish him success. We can discount the president's enthusiastic endorsement of Secretary Dulles as probably being little more than supervised elocution delivered from a prepared script. But no such discount can be tendered to Richard M. Nixon, Admiral Radford, William Knowland, George Meany, and other advocates of the anti-peace doctrine. Yet it is Mr. Dulles who is the recognized symbol of Americanism abroad. And it so happens that the strongest dissent against the policies he represents comes, not from Americans, but from old Cold War allies.

When the United States became committed to a summit meeting with the Russians at the Paris meeting of NATO last December, as the price for 'agreement in principle' on atomic missile bases in Europe and Turkey, Mr. Dulles looked like a man who had just been forced to eat worms. Since then, he has exhibited every trait of a person determined to welch on his promise. He obviously wants NO summit meeting, period. What is more, he appears to want no peace, real or facsimile. At the age of 70, he has little time to become The Voice calling the signals for the destruction of the human race—an 'honor' that would far outrank all the accumulated glories of Attila, Genghis Kahn, Napoleon and Hitler combined. There would be a major catch to such an honor for Mr. Dulles, however, should he be successful in forcing mankind over The Brink; there would be nobody left on earth to sing his praises. But, being a very pious person, maybe John Foster Dulles expects his reward to be rendered in heaven.

—Techno Critic

DEVICE CONVERTS HEAT TO ELECTRICITY

A General Electric research scientist has invented a revolutionary electronic device which converts heat energy directly into electricity, GE announced recently.

The device, named a "thermionic converter," was developed by Dr. Volney C. Wilson at the GE research laboratory in Schenectady, N. Y.

A number of the converters are already in operation at Schenectady, Dr. Suits said. He called them "experimental laboratory devices only" and said they are not considered ready for commercial production.

The invention, he said, "has opened the door to new understanding of how electricity can be generated from heat without using machines that have moving parts."

—New York World Telegram & Sun

—This is 'technological promise' to be contrasted with 'political promise.'

TEACHING PROFESSION 'WITHERING AWAY'

NEW YORK—The Carnegie Foundation for the Advancement of Teaching reported recently that the teaching profession is "slowly withering away" as a result of comparatively low pay.

In its 52nd annual report the foundation said teachers were leaving the profession and young people were reluctant to enter it. Between 1940 and 1954, the report said, the real income of lawyers, physicians and industrial workers rose from 10 to 80 per cent, but the real income of faculty members dropped 5 per cent.

The American public, the report said, must grasp "the simple fact that higher education costs money."

The report said tuition fees represent only a fraction of the cost of educating a student, with the difference made up by the college or university.

—The Oregonian

Estimate of Superhighway Costs Expected to Be Upped by Billions

Washington—Senators may learn soon that the estimated cost of completing the 41,000-mile interstate superhighway network has leaped $10,000,000,000 since the 1956 highway act was passed.

Secretary of Commerce Sinclair Weeks and Federal Highway Administrator Bertram D. Tallamy are to brief the senate public roads subcommittee on progress on the superhighway system as well as other road programs.

Senator Albert Gore [Democrat, Tennessee], the subcommittee chairman, has asked Weeks to produce at the hearing the bureau of public roads report on new cost estimates for completing the 41,000-mile network. Under the 1956 act, this report must be submitted to congress.

When the 1956 act was passed setting up the financing for the interstate system linking all parts of the nation, it was estimated the 41,000 miles of construction would cost $27,500,000,000.

However, one senate expert familiar with the revised cost estimates that have been coming in to the bureau of public roads said the new total might run between $35 and $40 billion.

This source said that some of the states have revised upwards by 100 per cent the cost estimates for interstate mileage within their borders. The federal government pays 90 per cent of the cost of building these superhighways.

He said that a steady rise in construction costs accounts for much of the increase. But another factor is a changed attitude by many of the states, which made their new estimates with much more care than the original ones.

The original figures on the interstate system were requested from the state in 1954 by a commission named by President Eisenhower and headed by General Lucius Clay.

Some state highway officials have said that these first estimates were not prepared with anything like the study that woulud have been devoted to them had it been known then they would be the basis for a 16-year roadbuilding program.

The new cost estimates are particularly important because, starting with the 1960 fiscal year, the apportionments of funds to the states will be based on these cost figures.

For the first three years of the program, the apportionment was figured on the basis of an old formula using such factors as mileage and population.

Congress must approve the new estimates before they can take effect. It is scheduled to act this year because the apportionment of funds for fiscal 1960, which begins July 1, 1959, will take place in the fall of 1958.

The senate expert said that the bureau of public roads may have cut down somewhat the figures submitted by the states. The 1956 law provides that the new cost estimates shall be made on a uniform basis, and left the monitoring of this up to the bureau.

However, if the new total cost is several billions above the original $27,500,000,000, the legislators will have to find new funds for the giant program or see it fall far short of meeting its target dates.

—Associated Press

U. S. 'MINE' GRANT BECOMES FOREST 'GIVEAWAY'

An editorial in the Oregon Labor Press brings up to date an Administration scandal "giveaway" story whose previous chapters were reported in LABOR. In part, the editorial says:

"Remember the Al Sarena 'timber mine'? In 1954, Secretary of the Interior Douglas McKay granted 13 mining claims in the Rogue River National Forest to the Al Sarena Corp. In granting those claims, McKay over-ruled the objections of experts in the U. S. Forest Service.

"Al Sarena," the editorial continues, "became an issue in the 1954 senatorial contest between Richard L. Neuberger and Senator Guy Cordon (Rep., Ore.), and in the 1956 campaign between Senator Wayne Morse (Dem., Ore.) and McKay. It became a symbol of conservation of the people's resources, versus exploitation of those resources.

"And now a sad finale may have been written to the Al Sarena case, with release of a letter from the regional forester of the Forest Service. This letter pointed out that there has been no substantial mining activity at Al Sarena—but the corporation has logged off 2.9 million board feet of fir and pine timber—which it received free when McKay granted the 13 claims to operate a 'mine.'

"This sorry ending to Al Sarena," the Oregon labor paper declares, "will do no good to the reputations of three reactionary, anti-labor politicians who defended it (the forest giveaway) to the end—McKay, Cordon and Harris Ellsworth."

Elsworth, as a Republican congressman from Oregon, played a leading part in pushing the scandalous Al Sarena deal. As a result of that and his other attempts to give away public natural resources to private grabbers, he was defeated in the next election. Then President Eisenhower appointed him as chairman of the Civil Service Commission.

Cordon and McKay were defeated by Neuberger and Morse but the Al Sarena Corp. continued to "mine" valuable timber from the national forest.

—Labor

—The labor press may bemoan this or that reactionary skulduggery but where is the labor movement's positive leadership which would seek to eliminate such possibilities?

TECHNOCRACY

North America's Only Social Dynamic

WHAT?

Technocracy is the only North American social movement with a North American program which has become widespread on this Continent. It has no affiliation with any other organization, group or association either in America ro elsewhere. The basic unit of Technocracy is the chartered Section consisting of a minimum of 50 members and running up to several hundred. It is not a commercial organization or a political party; it has no financial subsidy or endowments and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are $9.00 which are paid by the member to his local Section. Members wear the chromium and vermilion insignia of Technocracy — the Monad, an ancient generic symbol signifying balance.

WHEN?

Technocracy originated in the winter of 1918-19 when Howard Scott formed a group of scientists, engineers and economists that became known in 1920 as the Technical Alliance—a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934 Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundation of the present Continent-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses, or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing!

WHERE?

There are units and members of Technocracy in almost every province in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces. Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the nearest Technocracy unit.

WHO?

Technocracy was built in America by Americans. It is composed of American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this Continent. Membership is open only to American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective office or active office in any political party.) Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher or housewife—so long as you are a patriotic American—you are welcome in Technocracy.

Pamphlets

Introduction to Technocracy	25c
America Must Show the Way	15c
Our Country Right or Wrong	15c
Continentalism—The Mandate of Survival	15c
Make Way for Social Change	15c
I Am the Price System, and The Culture of Abundance	15c
Man-Hours and Distribution	15c
The Energy Certificate	15c
Science versus Chaos	10c

SUBSCRIPTION ORDER

To: THE NORTHWEST TECHNOCRAT
2208 Eighth Avenue
Seattle 1, Washington

Enclosed herewith is $..................to cover.................. subscription(s) to Technocracy's Magazines for........ years.

All Three Magazines, 12 months, 12 issues, $3.00. (All three publications are quarterlies, but so rotated that one appears each month.)

THE NORTHWEST TECHNOCRAT
TECHNOCRACY DIGEST
THE TECHNOCRAT

☐ This is a NEW subscription.
☐ This is a RENEWAL subscription.

Name..

Address..

City...Zone...........State.......................

(or) City...Province.............................

(Foreign rates, other than Canada, Mexico, and U. S. territories, 20% (60c) additional to above rates.)

Two Hundred Million Incomes

Only Technocracy has the fortitude to proclaim that abundance, economic and social security cannot be dispensed to the people of Canada and the United States by any political party administration of this Price System, whether of the Left or of the Right.

Technocracy takes its position that those who advocate any or all of these political nostrums are in actuality conter-revolutionists seeking to delay or sabotage the arrival of a New America of Abundance.

Technocracy points out that abundance and security can only be achieved on this Continent through the use of more and more technology, the degradation of more extraneous energy, the declining use of human labor, and a lesser number of jobs.

Our future in the New America does not lie in 65 million jobs. It lies in 200 million incomes.

You have your choice! Join a political party for more deception, or join Technocracy and face reality!

THE NORTHWEST Technocrat

July '58

IN THIS ISSUE:

- Organization in Nature and Society
- Crazy Economics
- An Economic Need —Steel
- 100,000 Governments

No. 192 (Vol. XXII)

25¢

Sec. 3, R. D. 12247
TECHNOCRACY INC.
Seattle, Washington

Organize For Action

FOR YEARS North Americans have been sold on the organized anarchy of 'free enterprise' as the means through which to achieve individual success. More than two decades of the capitalization of calamity of war and huge government subsidies of private corporate enterprise lent apparent strength to the illusion about 'free enterprise' so carefully propagated by the Madison Avenue advertising boys.

Temporary success of the Price System all but destroyed the social consciousness in that minority of citizens capable of recognizing the technological problem before North America, and of doing something about it. This problem, which was buried for a time under an avalanche of calamitous circumstances and propaganda, is coming back with a vengeance. Technologically produced abundance is battering with new force at the scarcity values of the Price System. The economic trouble of today will not be cured by governmental action to smear around a few more billions of dollars. Americans are $125 to $150 billion short of purchasing power each year to buy the national product capacity of $500 billion of the U. S. economy. The wide breach between national capacity to produce and purchasing power to consume will grow wider as more technology is applied to the economy.

North Americans have allowed themselves to be badgered, bullied and fast-talked by politics and business into accepting 'free enterprise' as the means to attain their individual 'dream worlds.' Is it any wonder that politics and business hold the American public in contempt? Who can have respect for a sucker or a coward?

Individually, North Americans have been smart enough to build a conglomeration of industrial machines; but collectively, they have denied the social implications of physical progress, and they have permitted themselves to become reactionary slobs. Yet, the relentless march of events will soon force them to take social action. What kind of action will it be?

People who come to Technocracy, bellowing for their 'fair share' of the spoils of the Price System and suggesting strong-arm action to get it, are more apt to be met with a verbal punch in the nose than with sympathy. Technocracy will never be a part of any sloppy social action to re-distribute proprietary rights or ownership in any form.

The only revolution in human history that ever meant anything has already happened. It is a technological revolution. Any political action could only be counter-revolutionary. Such social action not only would be unworthy of North American support; it would be socially disastrous.

Technocracy takes the position that the entire Price System must go. In its place must be installed a technological governance of things—not people—so that North American industry can be organized and co-ordinated to produce and distribute the abundance of goods and services of which this economy is capable. The time to act for this objective is now. Join Technocracy!

—EDITORIAL BOARD

COVER PICTURE

Supersonic Wind Tunnel

The Lewis Laboratory adjacent to Hopkins Airport at Detroit, Michigan, provides an excellent research plant for flight propulsion. The 10x10-foot supersonic Wind Tunnel has a Mach number range from 2.0 to 3.5, and simulates altitudes of 160,000 feet. Pictured are the blades of the main drive compressor which force air into the tunnel. [Photo courtesy Fairchild Engine & Airplane Co.]

JULY 1958
THE NORTHWEST
Technocrat

ORGANIZATION in Nature and Society

The organization of matter and energy which is involved in the structure, the function, the consciousness, and the ego of man, is such as to have baffled the students of natural phenomena from the earliest times of man's existence on the earth.

RECENT scientific studies of the universe reveal that there is a great range of degree in the organization of matter and energy that makes up the phenomena of the cosmos. But all the organization which is observable in outer space is primitive and crude compared to the refinements of organization to be found here on earth. The organization of matter and energy which is involved in the structure, the function, the consciousness, and the ego of man, for example, is such as to have baffled the students of natural phenomena from the earliest times of man's existence on the earth. It still requires a great deal of exploration and explanation, but science is closing in on it at a rapid pace and is destroying the mysteries and superstitions surrounding it. Beyond man himself, as an individual, is the phenomenon of social organization, an evolutionary stage that is only in its crude beginnings.

I

In attempting to reduce naural phenomena to their simplest forms, scientists first reached the conclusion that everything could be reduced to four fundamentals—space, time, matter, and energy. Later, it was shown that space and time are merely different dimensions of the same thing; and that matter and energy, similarly, are only different manifestations of one thing.

We shall not attempt, here, to delve into the theories of space-time, other than to note that it is divisible into units far below the crude comprehensions of the human mind. That is, it is divisible into units in the magnitude of a **trillionth** of an inch in size and a **trillionth** of a second in time. Hence, whole sequences of events can occur within a space far below man's visibility and within a time period far too short to be registered by man's senses. It is within this 'invisible' realm that most crucial events of nature take place.

Both matter and energy appear to be reducible to non-divisible units, known as photons and quanta respectively; and it appears that a photon and a quantum are the same thing. A free photon travels at the rate of some 186,300 miles per second with an energy force of one quantum.

A series of photons traveling along the same course in the same direction is known as a ray or a 'wave,' and the energy it exhibits is known as radiant energy. There are many varieties of radiant energy, depending on how close the photons are together in the sequence. If the distance between photons is anywhere between a fraction of an inch and many miles, they are in the radio wave frequencies. As the distance between photons gets progressively shorter, the rays are known as infra red, light, ultra violet, X-rays, and gamma rays. Colors represent different frequencies in the light range. Blue light, for example, consists of rays in which the photons are in the vicinity of a half-millionth of an inch apart. The gamma ray frequencies range, plus or minus, some ten billion photons to the inch.

The Northwest Technocrat is published quarterly by Section 3, R.D. 12247, Technocracy Inc., 2208 Eighth Avenue, Seattle 1, Washington. Entere as second class matter July 11, 1949, at the Post Office of Seattle, Washington, under the act of March 3, 1879 Subscription rate is $1 00 for fou issues. Single copy 25 cents. Continental Headquarters of Technocracy Inc. are located at Rushland, Pennsylvania. Entire contents copyrighted 1957 by Section 3, R D. 12247, Technocracy Inc.

Most energy and matter, as we know it, is not in a free radiant form but is 'congealed' into larger masses with slower rates of motion. One of the smallest congealed particles of matter and energy which is measurable by man is the electron. Although the electron is very much larger than a photon, its rate of motion is about the same, about 186,000 miles per second. The energy manifested by the motion of an electron is known as electricity. Electrons 'carry' a negative electrical charge, a phenomenon which still is not clearly explained. When an electron is traveling free in space, it is known as a Beta ray. Most electrons, however, are known as atoms. The electrons revolve around and around the nucleus of the atom, and occasionally they pass from one atom to another. There are other equivalent particles of matter which manifest a positive charge and these are called positrons. Similar particles in which the electrical charges are in balance are known as neutrinos. These are all extremely powerful particles for their size.

Other, larger particles are known as protons [with a positive charge], neutrons [with a balanced charge], or negative protons [with a negative charge]. This last is extremely rare in our part of the universe, where, when it does occur, it is quickly destroyed [or changed into a neutron?]. Protons and neutrons are major components of all atoms.

Intermediate-sized particles are known as mesons, of which there are many sizes, some of them probably compound. They are very rare within the earth's atmosphere but are quite common in outer space.

As matter congeals further, it becomes organized into larger and more complex forms. We have already mentioned the atom. In the atom there is a nucleus made up of protons, neutrons, and probably other, smaller particles. The simplest known nucleus, that of the hydrogen atom, consists of a single proton. The next simplest is that of hydrogen-2 [heavy hydrogen or deuterium]; this nucleus consists of one proton and one neutron. Hydrogen-3 [tritium] is a synthetic atom which has two neutrons in its nucleus. The next simplest atom, after hydrogen, is helium, the nucleus of which consists of two protons and two neutrons. The hydrogen atom has a single electron revolving around the nucleus. The helium atom has two revolving electrons. Other atoms are more complex. Oxygen, for example, has a nucleus composed of eight protons and eight neutrons and has eight electrons in its outer orbits. The heaviest natural atom is that of uranium, which has 92 electrons in its orbits and 92 protons in its nucleus along with either 143 or 146 neutrons. Man has recently been able to synthetically organize still larger atoms, the most notorious of which is plutonium.

Isotopes

Atoms of the same kind [that is, with the same number of protons and electrons] but with different numbers of neutrons in their nucleus are called isotopes. Thus we have hydrogen-1, hydrogen-2, or hydrogen-3, depending on the number of neutrons in the nucleus. That also accounts for the difference between uranium-238 and uranium-235.

The energy of free atoms in motion is called chemical energy. Under circumstances normally

CONTENTS

No. 192, Vol. XXII July, 1958

	Page
Organization in Nature and Society	3
Have You Observed?	14
Crazy Economics	15
Technocracy in the Field	17
An Economic Need — Steel	18
100,000 Governments	21
Developing Trends	25

EDITORIAL BOARD

Editor . . . . George Kellogg
Assistant Editors . . . . . Ruth Berge
Harry Briggs
Editorial Assistants . . . . . Fred Botts
Edith Jess, Secretary
Business Manager . . . . Rina Corcoran
Circulation . . . . . . Lucy L. Barnes

Printed in U.S.A. by volunteer and union
Labor on Technocracy's own press

encountered on the earth, most atoms do not remain free but organize into specific groups to form molecules. The molecule is the smallest particle of any substance as it normally appears on the earth. The lightest molecue is that of hydrogen, which is made up of two atoms of hydrogen and has a molecular weight of 2, taking the weight of a proton or neutron as 1. Next is helium, which is made up of only one atom of helium and has a molecular weight of 4. The most complex molecules are made up of thousands of atoms, intricately organized in definite patterns, and these molecules may have molecular weights running into hundreds of thousands. They are the complex protein molecules. The energy of molecules in motion is known as heat, which is the most common form of energy on the earth. Molecules are extremely small in terms of human concepts of size. Even the most 'perfect' of man-made vacuums still contains many billions of molecules per cubic inch.

The rearrangement of atoms to form different kinds of molecules is called chemical change. These changes occur under special conditions. Some kinds of chemical changes give off energy, other kinds absorb energy. Some changes involve the breaking of large molecules down into smaller ones; other changes involve the building up of larger molecules from smaller ones; while other changes involve the rearrangement of atoms of two or more kinds of molecules into still different kinds of molecules. In the rearrangement of atoms occurring in gasoline and oxygen molecules to form water and carbon-dioxide molecules, much energy is released, first in the form of chemical energy, which is quickly transformed into heat, then dissipated into the surroundings as radiant energy. Under certain conditions, some of the heat energy may be transformed into work energy, as when the chemical change takes place inside of a closed chamber and an explosion occurs, for example, in the piston chamber of an automobile.

Matter in Motion

Molecules may be free in space, in which case they form a gas. Under other conditions, they are only partially free, forming a liquid. Under still other conditions, they organize into rigid formations and become solids. Large masses of matter in motion produce mechanical energy or work. The energy of wind, running water, or moving objects [such as a rock rolling downhill or a piston in an engine] constitutes work.

To summarize, there are five principal kinds of energy in nature, namely: [1] Radiant energy—photons in motion; [2] Electricity—electrons in motion; [3] Chemical energy—atoms in motion; [4] Heat—molecules in motion; and [5] Work or Mechanical energy—masses of matter in motion. In addition to these, there is nuclear energy, a form which man has just recently learned how to release. This is the energy of neutrons and larger parts of atoms in motion, involving either the breaking down of certain kinds of large atoms to form smaller atoms [fission] or the combining of certain small atoms to form larger atoms [fusion].

II

In the vast spaces of the universe, enormous concentrations of material come together and form stars and other bodies. These represent huge masses of congealed energy. But, since most such concentrations of energy are not completely congealed into a quiescent form, there are often tremendous energy manifestations in connection with them. Our sun is among the lesser of these huge bodies. There, a long-term fission-fusion process is taking place, which discharges radiant energy in all directions, of which a tiny fraction reaches the earth and provides it with warmth and sunshine—a quantity running into trillions of horsepower equivalent.

Beyond the individual stars, there are great collections of stars and other masses known as galaxies. Some galaxies are of such huge size that it takes light several hundred thousands of years to travel from one side to the other. On the basis of recent observations into space, it appears that there are upwards of a trillion galaxies in the cosmos.

The concentration of matter and energy into a sun, a planet, or other object is circumstantial and haphazard and the gross interplays of energy are primitive and chaotic, as viewed from the refined organizations of matter and energy here on earth.

The earth is a 'cold' mass of matter, in which the energy is almost completely congealed into solids composed of complex substances. Here, the interplays of energy are slow and relatively minute in their quantities. At the temperatures on the earth, it is possible for complex interactions of energy to take place at very slow rates and in extremely small amounts.

The earth is in the extremely fortuitous circumstance of being just the exact distance from a hot sun, around which it revolves in a nearly circular orbit, to have most of its surface within the temperature range of liquid water—a temperature which has been maintained rather constantly for billions of years. The earth is probably the only place in the solar system [and for all we know for sure, the only place in the whole universe] where 'living things' can exist. In almost all other places observable to man, the interplays of matter and energy are far too violent to permit the refinements of organic functioning. In a few places, such as the outer planets of the solar system, the energy manifestations are too much the other way; that is, the temperature is far too cold. Of the two other planets which might conceivably support life, Mars and Venus, the former is on the cold side and the latter is on the hot side.

Life-forms from Matter and Energy

We know that it is possible for matter and energy to be organized into life forms—pre-cellular, unicellular, and multicellular plants and animals—for the simple reason that such forms do now exist. Further, it is possible for certain of these forms to manifest intelligent behavior; for, that phenomenon, likewise, exists.

Among the factors which make life possible on the earth, besides the fortuitous distance from a constant temperature sun, are these: The earth rotates on an axis at a moderately rapid rate, so that the surface does not accumulate too much heat on one side before it is cooled off, and the heat does not dissipate too much on the dark side before it is renewed. [The inclination of the axis is probably as much of a negative factor as a positive one; for, it introduces seasonal fluctuations over large parts of the earth and these tend to complicate the problem of living; but it does permit seasonal warmth to reach larger areas of the globe.] There is an atmosphere which serves as a heat reservoir and as an energy buffer. It also contains usable chemical substances. The atmosphere shields the surface of the earth from the direct effects of radiant and cosmic energy from outer space. Such direct radiation would quickly destroy any form of life that we know. The critical temperature for life forms is that of liquid water—between freezing and boiling. The common elements in the atmosphere and on the surface of the earth are those most essential to the organization of life forms. The oceans contain in solution a readily available supply of all essential life-forming minerals. The oceans also serve as temperature and carbon-dioxide reservoirs.

Without the constant temperature within the range of liquid water, without the available supply of certain elements, without the atmosphere, or without the oceans of water, it is highly improbable that we would now be living on the earth. [We shall not discuss the possibility of life existing in other temperatures or of life based on other mineral components, for we have no evidence to support that possibility, only speculative presumptions.]

Still, given a planet with a constant favorable temperature, an abundant availability of suitable minerals, a low order of transformation among the major energy forms, and eons of time, that does not guarantee that life forms shall arise. The waves might roll against the beaches; the wind might blow; the clouds might form and rain might fall, and streams carry the water back to the oceans; mountains might form and be eroded down to plains again; but there may not be life forms of any kind. There is a scientific probability that the earth once did exist in this state, perhaps for billions of years. Between such a barren planet and the verdant earth that we know now, there is a story of organizational progress which, perhaps, is unique in the universe.

The Result the Same

The scientist knows that, if matter and energy are organized in a specific manner, a specific result will develop; further, that if this same organization is effected many times, even billions of times, the specific result will be the same. However, if adventitious factors influence the process, there may be modifications of the result. This is true whether the phenomenon be the formation of snowflakes, quartz crystals, bacteria, house flies, dandelions, human beings, or swept-wing Dodges. Since the repetition of all the factors in a complex sequence is not exactly precise in all details, the results are not precisely exact in all their details. Yet, the resemblance is often highly approximated. Consequently, if one is familiar with the factors involved, one can make highly accurate predictions about the results. This is the principle behind mass production, whether in nature or in the factory.

In plants and animals are to be found materials and energy forms similar to those in the non-living environment; but the organization is different. Once the particular organization of matter and energy is achieved, the living plant or animal results; and, within a suitable environment, it is self operating. Once the organizing pattern is set up, copies of the organism can be turned out in fantastic numbers, whether the organizing pattern is that of bacteria, yeast, onions, grasshoppers, or rabbits. The reproduction of elephants and humans is somewhat slower, but the principle is the same.

III

What has baffled men for thousands of years is the question of how living things got organized, particularly in the first instance. This question is only now beginning to be answered; mainly, within the period of this century.

The evolution of living things from inorganic matter and energy is a long and complex story, of which only snatches are known at present. We shall mention here only a few of the crucial steps in the process, based on scientific theory, fact, and presumption.

The first critical process in the formation of living things from inorganic things had to be the chance development of a molecule that could interact with its immediate environment through a sequence of chemical changes in such a way as to produce two molecules like its original self. Prior to that, there may have been built up an environment of organic-like substances, such as simple carbohydrates and nitrogen compounds by interaction of 'the elements'; but a self-reproducing molecule was the critical event. Once this pattern of organization of matter and energy was achieved, it would be self-perpetuating and could result in copies of that molecule by the millions, given the proper materials, energy conditions, and stability of environment.

Molecular variations might arise at rare intervals in the self-reproducing molecule due to alterations occurring in the molecular structure. Such changes are called mutations. Most of these mutations would become extinct, due to their inability to reproduce themselves; but, occasionally, a self-reproducing mutation would occur and a new kind of multiplying molecule would appear. Anyway, there are millions of kinds of self-reproducing molecules in the world today, in the chemical composition of living plants and animals. For all we know to the contrary, they may all be descendants from one simple inorganic beginning. Often the process of molecular reproduction is an intricate and round-about series of chemical changes; but, so long as it makes a complete cycle resulting in an increase of the essential molecules, the result is viable.

The essential component of certain viruses [the simplest known 'living things'] is a protein molecule, which in some instances can be crystallized out; then, when placed in a suitable medium again, resume the organization and reproduction of more viruses of the same kind.

The next critical stage in the process of evolution would be the formation of an integrated 'blob' of material around the self-perpetuating molecule. This stage probably had its beginning in an accumulation of by-products and other happenstance materials. But later it was formed from selected materials, at least in part. This stage has been achieved in a simple form by viruses and similar primitive 'organisms.' It is now an essential part of all living matter and, in most instances, is very complex.

'Blobs'

Another significant development was the reproduction of the 'blobs.' This may not have been a difficult first step, possibly being nothing more than an enlarged 'blob' breaking up into smaller parts by accidental means. Later, this separation process achieved an organized procedure, until now, in most organisms, it is highly organized and complicated.

From these simple, early 'blobs' [too small to be seen by any microscope, except possibly by the electron microscope], there gradually developed larger and more complex forms of organisms—in magnitudes of size which are now visible under our high-powered optical microscopes. The simple Blue-Green Algae represents a highly advanced and very successful form of such primitive organisms. The bacteria represent other forms, possibly descendants from blue-green algae. At the earlier periods of this stage, different kinds of organisms developed various means of living off minerals directly, among them those forms which used sulphur and iron oxide for 'fuel.' Perhaps other pioneer forms derived their energy from fermentation processes rather than from oxidation; since there is reason to assume there was no free oxygen in the atmosphere of that time. But with the coming into being of the blue-green algae, there developed the complex protein known as chlorophyll. In the presence of sunlight, and with carbon-dioxide and water for raw materials, chlorophyll catalyses [and participates in] a series of chemical changes called photosynthesis which produces simple carbohydrates and pure oxygen.

From that time on, all the more complex plants and animals have depended, directly or indirectly, on the products of photosynthesis. This 'invention' started living things off on a surge of new developments. Among other things, it permitted organisms to use oxidation as a source of energy. All plants and animals now depend on oxidation for their internal energy. Only a few bacteria and other simple forms rely on other processes.

Eventually, the complex organization of life known as the cell evolved. A typical cell is about a billionth of a cubic inch in size—some cells are smaller, others much larger. The early unicellular organisms, neither plant nor animal, proliferated, through mutations and selection, into numerous kinds. Many thousands of species of them still exist. The structure and function of the cells which developed at this stage are still the basic structure and function of all living plant and animal tissue.

IV

After long periods of time, the single-celled organisms gave rise to many-celled organisms. This probably happened, at first, simply as a result of some mutation [a freak organism] in which the cells remained attached together after reproduction rather than separating into single-celled units. Thus a simple 'colony' of cells, made up of many identical cells, came into being. This clumping of the cells together provided them with certain advantages, such as size, water storage capacity, and possibly protection against predators. [By this time, there were numerous organisms which had become predatory as a means of acquiring their food, instead of manufacturing it themselves from mineral substances.] As time went on, these clusters of cells developed a higher degree of organization, thereby passing into the stage of the simple multicellular organisms. It is probable that all of the major multicellular plants and animals today came from one such form of clustered cells.

At some stage in their evolution, certain cells started going through a period of their life as double cells; that is, two cells fused into one, now known as a diploid cell. At intervals, or under special environmental conditions, this double cell would divide so as to form single cells again; these haploid cells would separate off as free living cells. Later, two of these single cells [any two] would come together and fuse again to form a double cell. Then, after a series of cell divisions, a new multicellular organism would begin to form. This process gave rise to sex and cross-fertilization, although there were no distinctions as to male and female cells at first; that came later. All higher plants and animals on the earth today operate on this principle and retain its essential features. In man, the sperm and egg cells are all that remain of the free-living single cells; all other cells in the body are double cells. In the higher plants, the haploid cell stage is more prominent than in animals.

Plant and Animal

The diversification of organisms into plant and animal forms came after cells were established and the two sexes were differentiated, although both sex cells were produced by the same individuals until much later [this still prevails among most plants and some animals]. Even today it is difficult to give a precise definition of plants as opposed to animals; it is even more difficult to distinguish between plant cells and animal cells. One has no trouble in distinguishing a human being from a maple tree, but such obvious distinctions do not hold throughout the organic world. The terms 'plant' and 'animal' provide us with a convenient classification; but there are many living forms that cannot be referred to either group, being more primitive than either.

Even prior to the evolution of the cell, certain factors of the environment played an influential part on the chemical activity of the 'organism.' Such factors as radiation, temperature, chemical substances, moisture. Those organisms which experienced chance mutations which permitted them to utilize more fully the favorable factors and avoid the unfavorable factors were the ones more likely to survive and become dominant. Certain areas of the cell became 'sensitive' to the presence of specific environmental factors and reacted so as to trigger further reactions within the cell. For example, there might be a small dot of dark pigment on the surface of the cell, which under sunlight would heat up, and this in turn would cause the cell to move off in another direction.

In the multicellular organisms, certain cells as a whole took on the specialized function of being sensitive to specific factors. The animals developed sensitivity to a high degree. But in most plants sensitivity is very crude and response is very simple; for instance, a plant may have certain cells in its stem which, when stimulated by sunlight, will lose water, causing them to shrink; and, as a consequence, the leaf or stem will bend toward the light, incidentally exposing the broad surface of the leaf to the sun. This is beneficial to the plant, since the chemical changes essential to the reproduction of chlorophyll and the manufacture of carbohydrates and oxygen require sunlight as a source of energy. In animals, which abandoned the use of chlorophyll as a means of manufacturing food, and in which survival depends on an intake of organic materials from other animals or plants, there has evolved a more complex and diversified system of sensitive cells, known as the nervous system.

The Sensitive Cells

At a very early stage in the evolution of multicellular animals, the nervous system became organized so as to transmit impulses from one part of the body to another and, thereby, to stimulate certain responses. In the human being, there are many kinds of sensitive cells, perhaps a hundred or more. Each kind reacts with a specific sequence of chemical-energy changes when stimulated by a specific factor in the environment. Certain ones are stimulated by radiations of rather a broad range [light], others by radiations of a much narrower range [color], others by vibrations of a specific frequency in the air [sound of a certain pitch]; others are stimulated by temperature [hot or cold], others by pressure, others by touch, others by specific chemicals [taste or smell]. These stimuli, acting through sensitive receptor cells, set off a chain reaction of electro-chemical activity, which passes slowly along fine fibers extending out from the body of the nerve cells. When the impulse reaches the end of a fiber, it may become extinguished; or it may pass on to the fiber of a 'carrier' cell in the nervous system. Such impulses may pass through a number of transfer and carrier cells to a final destination. There are three kinds of positive destinations. [1] The nerve impulse may stimulate a muscle fiber, causing it to contract as a result of specific chemical changes triggered by the impulse. [2] It may stimulate a gland cell, causing it to secrete a fluid. [3] It may reach a certain region of the brain where, in a certain type of cell, it causes a chemical 'explosion.' This last is the basis of awareness or consciousness. Each kind of an 'explosion' becomes a specific perception, such as blue color, sound of a certain pitch, sense of heat, cold, light, pain, touch, etc. In man, these perceptions form very complex patterns involving billions of cells. These patterns build up slowly in the individual. It takes time and experience for the young baby to coordinate a multiplicity of heterogenous perceptions into a pattern. In this connection, it may be noted that a person blind from birth is never able to coordinate light patterns to form pictures in his 'mind'; rather, he must rely on sound and touch patterns.

In other animals, for example the earth worm, the patterns of both stimuli and reception are much simpler.

V

Man is the end product of a line of evolution which probably had no better than one chance in a billion-billion of ever coming into being. Some billion or so years ago, a line of simple larvae-like organisms swam about in water, leading a predatory existence. [By this time the one leading to the mollusks and insects had already separated off.] Some branches of this line evolved into the star fishes and sea urchins; other lines ended up as various kinds of worms and polyps; but our ancestral line developed into a small primitive eel-like creature. Incidentally, long before this, the sexes had been separated into males and females, and they have remained so ever since. From this small 'eel' evolved the fishes, thousands of kinds, most of which eventually became extinct. A few survived and evolved in other directions. One line became more fish-like and gave rise to the modern bony fishes. From a certain line, there developed the amphibians, and from these came all subsequent land vertebrates—reptiles, birds, mammals. In the fish stage, 'we' acquired four limbs, a well-developed nervous system, with eyes, nostrils, and other sense organs, vertebrae, a skull, and teeth; in fact, almost all of our major external and internal structures can be traced back to the fish stage. In the amphibian stage 'we' developed lungs, ears, five digits on each limb, and limited ability to live away from water. In the late reptile stage, 'we' developed the four-chambered heart, warm blood, and a body raised off the ground on legs. Prior to that, the dry skin had been developed. In the mammal stage, 'we' acquired hair on our bodies; 'we' changed from laying eggs to giving birth to live young and developed milk glands as a means of nourishing the young.

Man's chief distinction from other animals is his enlarged brain, which enables him to handle many and highly complex patterns of perception. It has also enabled him to develop an articulated language, and to invent and use tools. Secondary distinctions are the upright posture and grasping hands. Modern man is at the end of a line of organic evolution which truly has had a long and hazardous course.

The Chronology

Let us recapitulate the chronology of this course: The age of the earth is variously estimated as being three to ten billion years; let us settle for five billion. The first self-producing molecules probably came into being some three billion years ago. It took something like another billion years after that for the first modern-type cells to evolve, and another billion for the appearance of multicellular organisms. Still another half billion years passed before the first chordates [pre-vertebrates] became established. This brings us up to the Cambrian Period, some 500 million years ago. Half of the remaining time was taken up in evolving our ancestral line through the fish and amphibian stages; and it took our line another hundred million years to clear the reptile stage. The earliest reptile-like mammals showed up about a hundred and fifty million years ago in the Triassic Period. Some 75 million years after that, our ancestors were about the size of a rat and not very different in general appearance, living in trees, eating fruit, buds, seeds, and insects. This creature had simple teeth, five toes on each foot with claws on the ends, with a long tail, and with a hair-covered body. From this 'tree shrew' developed the early primates, some fifty or more million years ago. Side branches developed into the bats, moles and shrews. In the early primate stage, 'we' developed bi-focal vision and acquired nails in place of claws on our toes. Our line also started off on a trend toward larger size and a steady enlargement of the brain. Many organs began to degenerate or disappear, among them the jaws, teeth, the tail, the hair, and the caecum of the intestine [appendix]. Some ten to twenty million years ago, man's ancestors were in the pre-ape stage. From this ancestral stock developed many lines, some of them now surviving in the form of the anthropoid apes and one line surviving as man. The human branch, beginning some five or more million years ago, proliferated into many species, all but one of which has since become extinct. The present species, Homo sapiens, appears to be less than a million years old; and, since its beginning, it has branched out into a number of varieties, the three principal groups of which are the mongoloids, the negroids, and the caucasoids.

The first men were probably somewhat smaller than the present average, black or blackish in color, with dark eyes, wavy hair, coarse facial features. The closest surviving relative of this early form was until recently the native Tasmanian; but this race is now extinct, leaving the Australian Black Fellow as the next nearest of kin. From the earliest varieties of Homo sapiens, evolution has followed several lines. The Negro retained the black skin, the hair became kinky, the lips thicker and the nose broader. The Mongoloid group, including the American Indian, Eskimo, Chinese, Japanese, and Malay, have developed straight hair, a yellowish or reddish skin color, and broader faces. The Nordic branch of the Caucasian group has developed a faded skin, pale eyes, a high, narrow nose-bridge, but has retained the original wavy hair. The Polynesian is a more primitive race of the Caucasoid group. Most modern populations of humans are mixtures of several races.

VI

With recent attention being given to space travel, there is a renewal of an old interest in the possibility of life in other worlds. For some reason, perhaps a religious reason, or just human conceit, this interest almost always focuses on man-like creatures. Of the possible occurence of life beyond the Solar System we are completely ignorant and can say nothing with any validity. The only theoretical support for the proposition that life exists in other worlds is that of analogy: There is life on this earth, so it is POSSIBLE for there to be life on other planets in the universe—IF there are any other planets and IF any of them have conditions comparable to that of the earth. The only solid support for the assumption that there are other planets beyond our Solar System, likewise, is that of analogy: There are planets in this Solar System, hence it is POSSIBLE for other suns [stars] to have planets or systems of planets. Considering the number of stars in our galaxy and the number of galaxies in the cosmos, it would be most remarkable if there were not many other planets.

Of the occurrence of life on other planets of the Solar System, we can say only that the probability is slight, although not entirely out of the question insofar as Mars and Venus are concerned. But we can say this with a high degree of certainty: If there are living things in any other part of the cosmos, no form of them will bear a close resemblance to human beings, or even to vertebrate animals; the probability of such an event occurring again is too remote. Science-fiction writers are too lacking in imagination to escape the fixations of earth-form, and in saying this we do not ignore their Bug-eyed Monsters.

We can say, further, that if the human species should become extinct on the earth, there is not the slightest chance that it can ever be 'reborn,' either from a new beginning or through evolution from any other species now living. This statement is based on mathematical probability. Biological investigations into the potentials of evolution in other groups of animals on earth leave little hope for the development of another creature with intelligence equal to that of man. We shall not take the space to present the arguments in favor of this conclusion, but they have been well worked out.

This, very briefly, is the story of life and man as near as science has been able to piece it together. It may not be completely satisfying to some people for various reasons; but it will have to do until more facts are available or a more suitable theory is developed. It is amazing how much scientists have been able to add to the story during the past fifty years; and, yearly, more gaps are being filled. [In the above discussion, we have not entertained postulates beyond those accepted by science. With other postulates one can come to very different conclusions.]

VII

The individual organism, whether plant or animal, is a well-integrated and coordinated 'society' of cells which function together harmoniously and cooperatively. In fact, their relationship is so close, physically and functionally, that it is the 'society' which has become the individual rather than the separate cells. Yet, each cell is a unit of life, of structure, and of function. Whenever the organism as a whole fails to maintain operations, the cells die as individuals—from accumulations of metabolic poisons, failure to receive essential supplies, or from external factors. In this respect, the higher animals act as a single unit of life more than most plants, but it is only a matter of degree, not of principle. A rose-bush can be divided into a number of parts and each part will survive and regenerate a new bush; likewise, a starfish and certain other animals can be divided and each part will remain alive and regenerate a complete organism. Man has lost this ability; that is, beyond the early embryonic stage, where division of the embryo results in identical twins.

Some species of animals advance to the next order of organization, wherein the individuals become integrated into a society. Some of the Hymenopterous insects and a few others operate as a colony in which the individuals are subordinated, although they remain physically separate and function as separate units. But some other animals actually achieve close physical union, for example, the Portuguese Man-of-War or the tapeworm, so that it is the 'colony' rather than the components that appears to be the individual.

Instinct

Among the insects, the social organization is achieved and coordinated by an automatic nervous system, which is able to guide the behavior of the individuals with very little decision or learning on their part. This type of behavior is called instinct, and it is more primitive and more prevalent than the form of control known as intelligence. The structure of the nervous system which automatically controls the instinctive behavior of the individuals is a product of selective evolution and is passed on from generation to generation by the process of duplication known as heredity. A whole species [or at least a whole race] must operate in the same manner without ability or volition to do otherwise.

Among human beings and a number of other vertebrates, there is a tendency toward social organization, but this trend is in its earliest beginnings, hence, any achievement to-date is very crude and imperfect.

Man's nervous system is not fused into instinctive patterns, but is left open in the brain; that is, in the outer layer of the brain—the cortex or 'gray matter.' Thus there is a large variety of possible connections that can be made. These connections are made rapidly and easily in early babyhood and childhood; but, as time goes on, they are formed with increasing difficulty. When the neutral circuits become closed by repeated use so as to operate similarly to instincts, we call them habits or fixations. But habits, unlike instincts, are not passed on to the next generation by heredity—they die with the individual.

VIII

There is no set pattern in nature for human society. The pattern is left to the creativity of human intelligence. There are many potential ways in which society may be organized, some of these being capable of success under certain circumstances, others incapable of effective operation. Evolution of human society has been seemingly slow and tedious. It began in man's early animal ancestry with cooperative family groups. Later, families joined together loosely in clans, herds, or colonies. This stage still prevails among the Gorillas. Later, the family groups of the colony became more closely integrated into savage tribes, where the first beginnings of specialization of work appeared. The savage tribes were never very large in size. These savage tribes exhibited a wide range of variation with respect to details of organization and operation, but the patterns tended to become fixed within each tribe or group of tribes. On the whole, the individuals of the savage tribes tended to be mutually cooperative rather than individually self-operating on a competitive basis.

The savage tribes were supplanted by barbarian tribes, which provided a different type of social pattern. Here, there was stratification of classes, with more or less competition between individuals in each class and, to a lesser extent, between individuals of different classes. The barbarian society is a social anomaly, being, instead of a cooperative organization of individuals, an aggregation of conflicting and competitive individuals and factions. But this type of social organization, under conditions prevailing over the past few thousand years, flourished and, in some instances, grew to enormous size and strength. It is still the type of society which is most common in the world today. It displays an arrogance and ruthless aggressiveness which has enabled it to overrun all other forms of social organization—up-to-date.

The major societies in the world today are in a state of transition. They are a melange of cooperative functioning and competitive individualism. In the West, the emphasis is on factionalism; in the East, more emphasis is placed on cooperation. Both sides exert a great deal of pressure on the individuals to make them conform to the general pattern. The East is tending toward socialism; the West is tending toward fascism. Socialism emphasizes the equality of individuals and the equitable sharing of the work and wealth of the society. Fascism emphasizes class differences among individuals and exhibits a very unequal division of the work and wealth. Neither type, as now conceived, is suitable to an area which derives most of its energy from extraneous sources, and which is capable of producing an abundance of goods for all the people.

Human beings present a wide variety of individual patterns of conduct, but they are just beginning to exhibit specialization of structure and function. Specialization would be necessary for a highly integrated social body wherein the individuals would be only 'cells' in a larger 'organism.' This may be for the distant future; but, for the next several thousand years at least, humans will remain as the primary units and the society will be an unthinking, unfeeling organization of individual entities. Whether the human line will ever evolve into a truly social organism, with the individual a specialized and subordinate cell in the social body, is a matter of conjecture—theoretically possible but not probable.

A Human Bee-hive

The closest approach to a human bee-hive would be a fascistic totalitarianism, somewhat resembling a monastic order on a large scale, wherein the individuals would all be thoroughly regimented and strictly regulated, so that there would be practically no individuality or personal freedom of choice left. In such an order, large numbers, particularly of the males, would be sterilized, through either castration or enforced celibacy. But, since there would not likely be a human equivalent of the queen bee, large numbers of females would have to be retained for reproductive purposes.

Fascism is one potential form of social organization, one which is looked upon with favor among certain categories of people in high positions of authority. Its realization has been consciously attempted time and time again in the past few thousand years.

It is unlikely that human beings will ever revert to a state of individual or family anarchy. Human society has already advanced too far for any such an atavism to occur, even allowing for the occurrence of an annihilating catastrophe of the first magnitude; that is, one which falls short of total destruction of the entire species. We can look forward only to more and closer social organization of mankind. Savagery is passe. Barbarism is far too rough on the species, particularly since the invention of modern tools and techniques of controversy as well as modern means of squandering the earth's resources. Socialism is too loose and compromising in its structure and operation. Democracy has all the faults of socialism, magnified to practical impotence.

IX

The future of the human species depends on a tight and highly efficient mechanism of social operations, yet one which permits the individual the maximum of personal freedom of choice and action consistent with the welfare of other individuals. This social organization would maintain a strict governance of THINGS but would require a minimum regulation of PERSONS. It would be the direct opposite of fascism.

The above reference is to a technologically designed social mechanism which has been given the name TECHNOCRACY.

As there has been no guarantee that the evolution of a species shall be beneficient over the long term, so there is no built-in guarantee that social evolution shall take the most beneficient course, or even that it will take a beneficient course at all. Millions of species have been squandered along the evolutionary pathway. Social experiments may go the same way. Human society is now at a crucial stage in its evolution. It can take a certain direction which will lead it to a new and higher social organization, or it may 'go wrong' with a reasonable chance of ending in extinction.

For the first time, mankind is in the position to choose its course into the future. Such an opportunity has never been had by any other species. We can both choose the road we are to travel and make it a better road on which to travel. For the first time in the organization of matter and energy on this earth—and possibly in the whole cosmos—an organized form of life, as a population, is faced with a major decision. The time for making that decision has arrived in a most critical form. We can advance into a Technocracy or we can 'end it all' in a radioactive chaos. Any 'middle road' looks very discouraging at the present time.

It is up to us now living to demonstrate whether a population of intelligent beings is capable of effecting a collective decision. It is the supreme test of intelligence. The outcome of that test is not yet assured, but it could mean survival or extinction for mankind. Human intelligence, steeped in centuries of barbarism, may fail the test and the human species may soon cease to exist. The outcome of the test will be ALL or NOTHING.

We should like to be an impartial observer at a safe distance from the event; but we are all in the same boat. It is sink or float together.

The key to the earth, to life, to man, to intelligence is ORGANIZATION. The key to an efficient, satisfying, and enduring society, too, is Organization. The crucial question at this stage is, do enough people have enough intelligence to organize for their own survival and welfare? It is very likely that we shall soon know—one way or the other.

—Wilton Ivie, CHQ

WHY BUSINESS IS BAD

The following essay was written by a schoolboy and has been, we understand, anthologized in books. The juvenile quality of the essay is apparent, but it compares quite favorably with the 'recession' explanations seriously given by politicians and so-called economists. Here is the essay, entitled 'Why Business Is Bad':

January: People spent all their cash for the holidays.

February: The best customers have gone to Florida.

March: Everyone's preoccupied with income tax.

April: Unseasonably cold and people spent too much money on Easter clothes.

May: Too much rain; farmers distressed.

June: Not enough rain; farmers distressed.

July: Excessive heat keeping people away from stores.

August: Everybody is away on vacation.

September: Everybody is back from vacation, but broke.

October: Unseasonably hot and people are waiting to see how the elections will go.

November: Everybody is upset over the elections.

December: Everybody is waiting for the January sales.

Have You Observed?

... **Conditions throughout** United States and Canada are reminiscent of the 'dirty thirties' when government-stored food was distributed to the destitute in a 'grand' gesture of compassion for the needy. In western Washington State you can get a few pounds of dried milk, cheese, rice, flour, corn meal and butter if you can prove that you do not have an income of more than $88.00 per month or a cash reserve of more than that amount. If you meet the conditions under which distribution of these government surpluses is being made, then you can get $2.31 worth of these surplus commodities **per month,** excluding valuation of the butter, which the authorities haven't decided to give away yet. One county announced in the press that it was not planning to distribute surplus food because administration of the program was too expensive. It's cheaper, from the Price System standpoint, to let the needy starve!

... **Despite the crumby nature** of the surplus food distribution, in one southwestern county 2,093 'customers' crowded the distribution center in the first two days of operation, taking away ten tons of food. The press reported that not a penny changed hands, which lends proof to Technocracy's observation that you don't have to use money to distribute goods and services. But why settle for a measly hamburger when you can have the whole steer?

... **Another thing** that should be pointed out to the persons receiving surplus food is that they are not getting this food for nothing, even if they didn't pay for it upon receipt. They have already paid for it twice; once in taxes to the federal government, and again in the higher prices that they had to pay for food supported by government subsidy programs, which forced prices up on this food.

... **As the depression wears on** and grows more serious, Eisenhower gives his little 'chins up' speeches on how things are getting better. Yet, while in March there were seventy critical unemployment areas in the U. S., the number in mid-May had increased to eighty-six. Further, by mid-May more than 900,000 unemployed individuals had exhausted their unemployment compensation. From all indications, the worst is yet to come because there is several months time lag before prolonged high unemployment has a full impact in terms of personal bankruptcies and business failures. It appears as though Fall will bring anything but a return of government-subsidized Price System 'prosperity.' What kind of emergency, like the Korean War, can be manufactured to pull the Price System economy out of this dive?

... **Even romance and the birthrate** are being hit by the depression. Marriages in March of this year were off 9.1 percent from March a year ago. The birthrate was down 1.1 percent over the same period. Even the 'babies for prosperity' propaganda is going haywire on the Price System.

... **As the American Price System** drowns in technological abundance, economies throughout the 'free world' which have depended heavily upon American support are beginning to experience drowning sensations along with the American Price System. Some of these countries, for example, in South America, have shown an ugly temper about the situation, as Vice-President Nixon well knows. About the most stupid thing that 'Ikey' could have done was to call the demonstrators against Nixon communists, if he wanted to keep those people on 'our side.'

... **Nixon bragged** in a radio interview of being well received at a Roman Catholic school in South America. And why not? Nixon has espoused Roman Catholic propaganda and used its tactics for years. He has a lot in common with Roman Catholic fascism, which he had proved by the manner of his rise in politics in the United States.

12247-1

CRAZY ECONOMICS

THE ODD THING about this recession [as it is still being called], is that the cost of living has continued to rise despite the business decline and the large supply of goods available. We wonder if this is just a temporary phenomenon caused by a lag in response by sellers to the change in market conditions, or if it is an indication of something deeper. Can it be that we are reaching a stage where prices cannot follow downward in response to declining demand and the threat of abundance? Are the fixed costs becoming so high that to accept a lower price per unit would result in loss? Is the economy so dependent upon mass production that any reduction in the volume of goods produced results in an increased cost per unit and hence tends to discourage sales at lower prices? If these things are true, then we are at a critical point in the operation of the Price System; the economy must continue to expand at a compound-interest rate or face disaster.

In the past, although the economy had to expand at a compound-interest rate, it could absorb short periods of depression and decline. True, it was an agonizing process accompanied by unbalanced budgets, increased public debt, widespread hardship and unemployment; and the rate of increase was restored only by wars and defense spending which took away the threat of abundance in consumer goods. Are we passing the point at which even more 'agonizing' will not be sufficient to restore the compound-interest rate of growth? If so, the hour is very, very late indeed.

As documentation, we present two articles. The first, taken from the Labor Journal [AFL; Everett, Wash.], of March 19, 1958, is headed, 'Living Costs Hit All-Time High As Unemployment Keeps Rising.' It states, 'The cost of living hit an all-time high in January, the same month in which more workers were unemployed than at any time in the past eight years. Prices for goods and services have now risen almost without a letup during the past 23 months.'

Our second reference is to the Everett Herald of April 24, 1958, which we quote as follows, 'Living costs hit another all-time high in March, the government reported today.

'The bureau [of Labor Statistics] said it was the largest monthly advance in the consumer price index since July 1956.'

The recent report on crime by the FBI reflects the hardship due to depression. People prefer to be honest, but they have to eat, and they can't eat sympathy. The crime rate has increased four times as much as the population rate in the last eight years, and is up 9.1 percent in 1957 over 1956. The juvenile arrest rate was two and one-half times the population increase rate. Ninety-five percent of crime was committed for profit.

Technocracy pointed out long ago that the majority of crime was for profit, and the operation of the Continent of North America by the method originated and proposed by Technocracy Inc. would automatically eliminate that proportion of crime committed for profit.

It is not secret that large numbers of people are running out of unemployment insurance, and that the government is talking about extending payments for an additional sixteen weeks. It would of course be improper, if not unconstitutional, and certainly poor politics, to give this money to one group of unemployed simply because they had been insured, without also giving it to other groups, so the question of the dole has been raised.

The Labor Journal of March 19 says, 'An estimated 40,000 persons a week used up their unemployment insurance benefits during February, forcing them onto welfare rolls or other forms of relief.

'. . . unemployment among workers covered by the jobless benefit program hit a new record in mid-February . . . of 7.5 percent of the 42,000,000 workers covered by the insurance system.'

The Labor Journal of May 7, 1958, carries an ironic editorial, 'Ike And Marie.'

'In 1788, Queen Marie Antoinette of France was told that the poor people of Paris had no bread to eat. "Let them eat cake," she said.

'In 1958, President Dwight D. Eisenhower of the United States was asked what should be done to cure a deepening recession and unemployment. "Buy! Buy more!" he said.'

If we may be permitted a joke department at this tragic time, we would like to quote Drew Pearson's column of May 6, which in turn quotes U. S. Secretary of Commerce Sinclair Weeks, as follows, 'I don't know why we have to be concerned. This is no depression or even a recession, but just a business lull caused by the Russian Sputnik and the recent severe winter weather.'

Well, if you don't appreciate that as a joke, try this one of our own, 'The trouble is that our money went Buy-bye a long time ago.'

We note in the news a few cases of suicide by those who had become despondent over failure to get another source of income after having become unemployed. For them America's capacity to produce an abundance is now meaningless; for them the Technate of North America comes too late. To all those suffering hardship, anxiety and want due to the failure of the Price System method of social operation, Technocracy brings a bright new opportunity. This we say to those who are out of a job. And to you who are still solvent and working, we say, 'Now is the time to come into the only organization which can help you, and in which you can work to help solve the problems of the Continent. That organization is Technocracy Inc. Why wait until financial disaster strikes YOU! You can be so much more effective NOW.'

—ROGER N. EVANS, 12247-1

'BRAIN' TABULATES HEALTH

A giant forty-ton computer, first of a new breed of so-called electronic 'brains,' was placed in operation recently at Detroit, where it will keep track of hospital and medical records of some 3,500,000 Michigan residents. Above, a technician presses a control button to activate the 24-section 'brain,' which is housed in 5,000 square feet of air-conditioned, humidity-controlled space. Fast enough to read the 627,000 names in the Detroit telephone book in eleven minutes and versatile enough to play tick-tack-toe, the new system, called the Datamatic 1000, was hired from the Datamatic Division of Minneapolis-Honeywell Regulator Co. for $37,000 a month by the Michigan Blue Cross-Blue Shield Service. This is the first organization to use the 'brain,' scheduled to handle an average of 25,000 daily record changes and transactions within two hours. Similar systems have been ordered by firms and organizations in Boston, Minneapolis, Baltimore, Washington and Los Angeles.

—New York Herald Tribune

—Why not a medical record of all citizens from birth, up to date and instantly available?

MY TWO CENTS WORTH

My neighbors are all getting ready to go on vacations again this summer, which is all right with me if they would just go on their trip and keep quiet about it. But, no, they have to fuss and argue for weeks about where they are going and what they are going to do, and they want you to come over and see all the new stuff they have bought to take along. Then, when they get back, they want to tell you all about the trip—how nothing turned out as well as they expected and the awful prices they had to pay for things and how tired they got trying to get in all the things they wanted to do but didn't have time for or the weather wasn't right. But, worst of all, they want you to come over to their houses and see all the pictures and movies they took of their trip. I guess it is what you call being neighborly; but, if you have to do that to be neighborly, I would just as soon be a hermit.

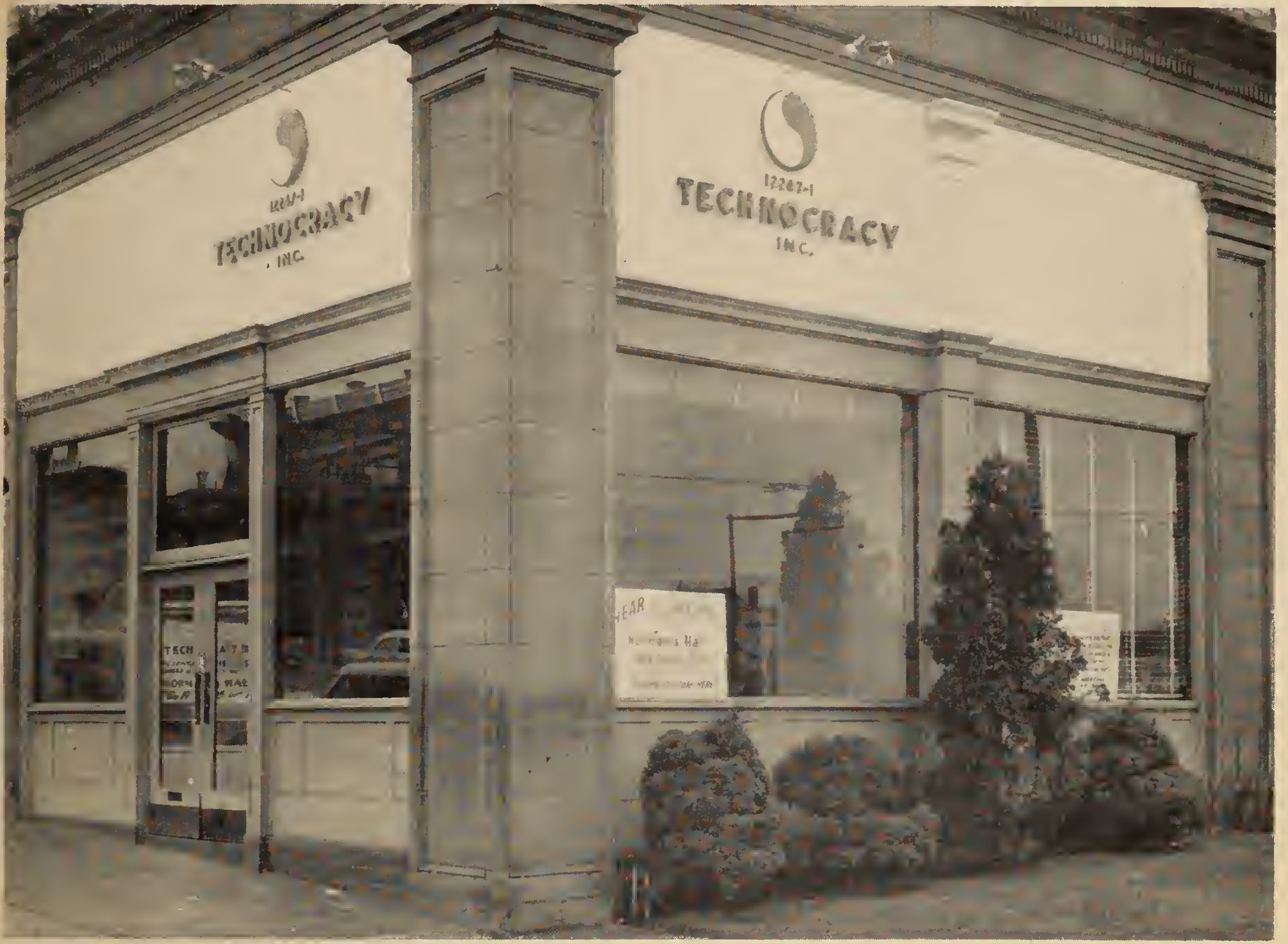
I don't mind people coming over to my place and helping me loaf if they don't try to be too energetic about it, or insist on jabbering all the time, or expect me to look after them. I don't like the kind of visitors who think you should entertain them all the time and give them all of your attention. I think visitors should be enjoyed, not be a nuisance. If people come here to show themselves off, or pester me, or USE me, or organize me, or convert me, or reform me, or sell me something, they soon get discouraged and leave; I have ways of dealing with them. But if they just come here to enjoy themselves and don't interfere with me enjoying myself, we get along fine. I like company part of the time, but not all the time; and there is a number of people I like to visit, but not everybody and not very often, and not just as a duty.

If you want to get away from people, the best place to go is a big city. There, people leave you alone more than anywhere else. If you go to a small town, the neighbors all come around to 'get acquainted' and see what you have in your house and tell you all their troubles. Or, if you go out on a camping trip, other campers 'drop by' to waste your time telling you what big shots they are back home, where you wish they would stay. I guess it's a good thing there are people in the world, but even the best of things can be a nuisance if you have too much of them.

—IMA MORON

TECHNOCRACY IN THE FIELD

The Members of Technocracy apply their efforts in various ways to bring to the attention of all North Americans the significance of the present social trends and the need for a technological solution to the problems which arise out of them. They realize that only through their activities and efforts is the public made aware of Technocracy's Program.



For The Public's Attention

The members of Technocracy, Section 12247-1 [Everett, Washington], functioned toward attracting the attention of the public to their Section Headquarters. This attracive sign symbolizes Technocracy both by day and by night. Many hours of after 'regular work' time were spent designing, constructing and erecting this pleasing facade. Technocrats function in a variety of ways to stimulate the citizens into social consciousness. An inviting headquarters does create interest in Technocracy's analysis and design. The corner location is especially advantageous with respect to the probability of people noticing the neat, concise facade symbolizing for Technocracy.

[Continued on next page]

HOWARD SCOTT TOUR

Howard Scott, Director-in-Chief of Technocracy Inc., completed his tour of the Great Lakes Area on Tuesday, March 25, with a lecture at the auditorium of the YWCA at Akron [8141-3].

The tour began on March 8 at Chicago [8741-A], then Detroit, Cleveland, Akron, with an area Membership Meeting at Kent [8141-14] on Sunday, March 23.

A near capacity audience heard the 'Chief' at Cleveland after the dinner at the Masonic Auditorium. Many 'old faces' appeared at the lecture, along with a number of 'new' ones.

The uncompromising attitude of Technocracy may have made it 'unpopular' with the followers of the conformist cult that the public has been satiated with during the last decade of Price System prosperity, but the Chief's visit to Cleveland revealed an underlying awareness that all is not 'right' with the formula of political prosperity, and that Technocracy, in spite of the campaign of silence, will be heard.

Technocracy received more radio publicity in this area during this tour than it has in many years. The interviews and broadcasts were received with avid interest. The Friday night lecture received newspaper publicity — without comment, critical or otherwise—just straight reporting [although the Chief was misquated]. Spot announcements of the Dinner-Lecture appeared in some of the suburban newspapers.

One of the high points of the Chief's visit to Cleveland was an invitation from the Press Club for lunch and an interview. This was recorded on tape and broadcast over the radio the evening of the same day. This broadcast precipitated enough interest by the radio listening audience to bring a request that it be played back on the 'event of the week' on the following Sunday evening program. One announcer termed the interview as 'something out of this world!'

The interest generated by the broadcast has expressed itself in inquiries at the Section.

Last, but by no means least, two TV interviews were accorded the Chief. One on the Dorothy Fuldheim Program on March 19, 1958, and the following day by Pete French. Although the interviews were only five minutes each, the Chief managed to pack a lot of information into them. One commentator stated that Technocracy had more in its favor this time than last.

—8141-15, Cleveland

AN ECONOMIC NEED — STEEL

STEEL! Those alloys of iron that enabled Man to begin the arduous trek up out of the social mire that comprised the eons of human toil civilizations.

Unquestionably the most basic material requirement in a Power Society, steel has 'proliferated' so rapidly it bids fair to swamp the Price System. So we could do worse than to pause for a few moments, and reflect briefly on the role of steel in a healthy American economy.

First, we shall take a look about us and see what use is made of steel. Without so much as turning our head, we notice that the typewriter, upon which the draft of this essay is being written, is made chiefly of steel, as is also the stand upon which it rests. Our ocean liners and freighters are steel; our railroad trains are steel, as well as the tracks upon which they run; autos and trucks are made largely of steel. There are literally tons of steel in every modern transport airplane. All of our great bridges are steel. Most of our industrial and office buildings contain enormous amounts of steel. By far the majority of tools of all kinds are made of steel. Our kitchen stoves, refrigerators, freezers and other home appliances are made of steel. You cannot even shave without the 'bloody stuff.'

Since it is obvious that we cannot live, at least in the manner to which we have grown accustomed, without steel, let's take a good look at how we live with it.

Steel is produced in a number of ways, but the common parent of them all is elemental iron. So, as we trace steel thtrough our society, we pick up the trail in the great open-pit iron mines. [While tracing through the process in the production of steel we would observe that the number of people who depend on this basic industry for their livelihood and for their buying power is enormous.] Here the people employed at the mine dig out, haul, and load the ore onto boats which transport it to the locale of the blast furnaces, the huge reduction plants that change the ore to iron. But other materials are also required in the process of changing the ore to iron; namely limestone and coal. Coal is required in such prodigious quantities, upwards of five tons of coal per ton of ore, that many thousands more wage earners acquire their income from this source. And don't lose sight of the thousands who derive their income from hauling the coal from mine to furnace or coking plant. The limestone quarries also require their quota of wage earners, along with those who are engaged in hauling the limestone to the blast furnaces.

Now we have the raw materials at the blast furnace site, and we see the staff required to man these industrial behemoths, whose end product is pig iron. This pig iron moves on into plants which alter its characteristics and properties by means of several different processes with more paychecks being generated concomitantly. Steel is born and hundreds of thousands of Americans have acquired an income.

Now our steel moves on into the rolling mills, where the huge ingots are heated and rolled into structural shapes, bars, rods and sheets. Our steel is now ready to begin its journey into the channels of the consumer, where the structural shapes move into the industrial building trade, bridges, heavy equipment and agricultural machinery. Huge quantities of the rods go into reinforcing for concrete, chiefly in highway construction and in industrial and commercial buildings. Much of the sheet steel goes into the colossal auto industry, and into its not-to-be-despised runner up, the 'tin can' food container industry.

Thus, we become aware of the fact that the consumers of finished steel employ a lot of people, and distribute thousands upon thousands of paychecks, the life-blood of the American Price System economy. For instance, there are tens of thousands of automobile dealers in the United States, many of whom provide the income for several people. Add to these the myriad of auto supply establishments, and the even more numerous gas stations that cater to the auto trade, and a sizeable fraction of the incomes of the American people is accounted for.

The tin cans [really steel cans] provide the mainstay for the food processing industry, which provides at least seasonal income to many hundreds of thousands of people.

At this writing steel production is loafing along at approximately one-half normal capacity, thereby curtailing the incomes of many hundreds of thousands of people. Since these people are all consumers, and since a sizeable part of this consumption normally consists of items of steel, further retrogression in steel production is to be anticipated, this type of trend being self-accelerating, tending to 'snowball' into increasing severity as it moves along. Needless to say, this is not an economically healthy situation.

Now let us examine briefly another facet of the problem of steel in a healthy American economy, one that bids fair to eclipse the wage and income aspects as the years roll swiftly by.

Steel and power are the 'roots' of an industrial society and it behooves us to husband them wisely. Iron in mineable concentrations exists in only a few localities, and some of these are nearing exhaustion. When the iron is gone, there isn't any more.

If America is to remain a great nation in the world, it is imperative that strict practices of conservation be implemented at the earliest possible date. In order to do this, it is obvious that the wasteful practice of dissipating steel with the primary objective of disseminating incomes among our citizenry must cease, and very quickly. This requires the abandonment of the Price System technique of social operation, with the concomitant implementation of a Scientific Social Control. This is Technocracy, and it merits your study and support.

—R. L. FULTON, 12247-3

CRIME SYNDICATE SET-UP

A national crime syndicate which is assuming the proportions of a 'second government' by possessing economic power estimated in millions of dollars is now posing a 'grave' threat to the entire country, United States Attorney Paul W. Williams declared.

Mr. Williams, speaking before the Kings County Chapter of the New York University Law Alumni Association, said the crime network has developed into two major syndicates, operating out of Chicago and New York and apparently linked by the Mafia, the notorious underworld terrorist organization.

Declaring that 'if organized crime advances in the next 20 years as it has from 1920 to 1958, I do not wish to visualize the consequences,' the Federal prosecutor for the Southern District of New York described the present situation this way:

'This invisible government has millions of dollars at its disposal. It enforces its own decrees. It carries out its own executions. It collects its own revenue. It includes the major criminals of the country, and it has as its allies some public officials tempted by the lure of money and power, as well as short-sighted business and labor leaders.

'It is a rotten and vicious empire built on greed, murder and violence.'

Mr. Williams said the New York and Chicago syndicates each have a 'board of directors' from which 'criminal subsidiaries' throughout the country purchase a 'franchise' and to which they pay an 'annual tribute' for protection.

The network's major sources of income derive from gambling and narcotics, he said, adding:

'This concentration of economic power at the disposal of the criminal syndicate and its leaders represents the most serious aspect of the threat to the country. This power is primarily employed first, to infiltrate legitimate business and labor unions; second, to purchase respectability; and third, to influence and buy elected public officials and law enforcement agents.'

Among the measures Mr. Williams recommended to combat the syndicate was Federal legislation that would authorize officials to use wiretapping in cases of espionage, kidnapping, extortion and racketeering; allow some subpoenas to be considered served by their publication, and expand Federal jurisdiction in gambling cases.

—New York Herald Tribune

GRADUATING ENGINEERS FIND JOBS ARE FEWER

NEW YORK—Engineers in the Class of '58 can expect to be absorbed by industry, but it may take a little more time than in past years.

A United Press spot check of some major engineering schools reveals that the June crop will not, for the most part, be able to walk off the campus and into a job. Production cutbacks have tightened up the job situation.

One student who is completing college on a scholarship provided by a large chemical company recently learned the bad news: sorry, the company has no opening for him at present. He's still looking.

Various authorities report the larger companies no longer are hiring 'spare' engineers as they did in recent years.

Walter Kelly, director of placement for New York University's School of Engineering, said the number of firms interviewing June graduates is down from 200 to about 150.

'Most of the cancellations came from the aircraft group, but there are a few suppliers involved, too,' said Kelly. 'Those that are interviewing appear to have cut their manpower requirements considerably,' he added.

'In general, graduate engineers last year averaged three to five offers, some as many as 12. This year, the top graduates get three to five offers. The others start from scratch,' said Kelly.

There is no significant change in engineer's salary. Last year's starting average, $465 a month, is expected to hold up for this year.

William Cavanaugh, executive secretary of the Engineers Joint Council, said 34,500 bachelor degrees will be awarded in engineering this June. This is 2,500 fewer than had been forecast.

Herbert P. Catlin, director of placement at Renssalaer Polytechnic Institute, Troy, N. Y., reported, 'There is a good deal of holding back as far as hiring goes. Employers as a whole are being more conservative and selective.'

Thomas W. Harrington, Jr., placement officer at Massachusetts Institute of Technology, said, 'Demand for graduates is down about 25 percent from last year. But there still are more jobs than there are engineering graduates. This year, though, they may have to take a job other than the one they'd hoped for.'

Dr. Donald Clark, placement bureau head at Cal Tech, reported: 'Job prospects for 1958 graduates will be very tight.' He noted there will be 25 fewer companies interviewing graduates this year than last but a late fall pickup is expected, when new government missile contracts begin to be felt.

A more optimistic note was sounded by Florence Watt, director of the placement bureau at the University of Southern California. 'They're still looking the same as ever,' she said of company interviewers.

At UCLA, Assistant Dean Warren A. Hall said, 'The job situation is considerably tighter. Companies are looking for the cream of the crop.'

100,000 GOVERNMENTS

A few of the more intelligent individuals in the United States are beginning to recognize that this country is in serious trouble because of lack of leadership foresight and because of general incompetence resulting from politics and the Price System.

AS OF SEPTEMBER 1957, a government bureau reported that there were in these United States, 102,328 governments! Briefly defined, a government is an organized entity of personnel with functions of a governing character [especially with the power to tax] and with substantial autonomy to carry on its operation.

The latest report shows that there are 50,446 school districts, 17,198 townships and towns, 17,183 municipalities, 14,405 special districts and 3,047 counties. In addition, of course, are the 48 states and the federal government. In each of eight states of the union there are in excess of 5,000 governments of various descriptions!

Caught up, as we are, in a fast moving domestic and international situation, we are beginning to discover what it is costing [besides dollars] to maintain 100,000 governments. Beyond question, the United States has developed the highest degree of incompetence, in a social situation that demands the highest degree of competence, of any social administration in the entire world. We live in a scientific environment in which technically necessary measures must be subjected to the approval of political groups which are not qualified to make decisions on technical matters. These groups are subject to the pressure of a constituency which is in general uninformed. The opinion of the general constituency is controlled by a few individuals with plenty of cash and influence to establish 'public opinion.' While this colossal swindle is foisted off as 'democracy,' the people who do the financing required to generate 'public opinion' are not without their control. They are controlled by fear of any change that will interfere with their Price System method of social operation, no matter how extreme may be the need for change.

So instead of a flexible system of 'checks and balances,' the people of the United States in reality are saddled with a technically incompetent, ponderous, inefficient, inflexible government by opinion of special interest groups, the opinion being that in spite of everything, the Price System must be preserved. The result is organized chaos in government which is conducive to control by the chiselers for their personal benefit.

Society demands that carpenters, machinists, electricians, and other tradesmen serve four or more years of apprenticeship before they may practice their trades. But this same society demands no training of its governing officials. In 1778 government incompetence was more tolerable than now, if still undesirable, because technical growth and development of industry were in their infancy. Authoritative knowledge of technical subjects and scientific long-range planning were not required in the early days of this republic. But the scorching pace of scientific development in the past few decades has changed the whole manner of living of the people of the United States, which in turn demands a new method of social operation. This civilization cannot much longer tolerate the conflict between new methods and means of living and old ideas of social control. Events of the day are punctuating the basic importance of technological trends observed by Technocracy over a period of the last forty years. A few of the more intelligent individuals in the United States are beginning to recognize that this country is in serious trouble because of lack of leadership foresight and because of general incompetence resulting from politics and the Price System.

It is freely conceded that the scientific superiority of the United States in the world today is open to serious question now that the Russian scientific proficiency reveals that the Russian population is not composed entirely of ignorant peasants. Opinions have been flying thick and fast concerning what should be done about the mired down educational system of the U. S. The cost of 50,446 governments in the form of school districts is making itself felt at this point.

For an example of what politics can do to sabotage a function, consider the school district board. These boards are composed of elected officers, most of whom are local businessmen, small-time politicians and ordinary citizens. With perhaps a few exceptions, the board personnel knows little about the process of education and less about educational requirements in this day and age. Yet, these boards are expected to develop and maintain educational standards that are adequate to meet the needs of a scientific society. Local boards are controlled by state politics, so that if any board member did have an idea, he wouldn't get far with it.

Board members of the local school districts are the 'sterling' members of the community who demand of teachers such an inhuman level of social conduct and at such an unattractive salary that the tendency is to gain only the most mediocre, colorless and insipid of teaching personnel. This residue of teachers, by nature, is essentially conservative. Discussion of ideas in the schools of this nation is discouraged. While the classroom should be the focal point of airing of fresh and dynamic approaches to every field of social endeavor, today it is a source of poorly presented reactionary viewpoints by second or third rate teachers. Is it any wonder that the U. S. is losing its scientific superiority when one can observe high school graduates who do not know their multiplication tables, and who cannot write a complete sentence of English? But in the Price System the important thing is that the child graduates, whether he knows anything or not, which makes the parents happy and thus tends to keep the incumbent politicians on the school boards.

Scientific Growth Process

The level of scientific progress of this country is making certain specific demands of the education process quite apart from the general public understanding A scientific growth process has been started which must be maintained in order for this civilization to continue to operate. The talents required to stimulate scientific growth are increasing as the horizon of science broadens. Years of preparation are necessary to prepare for future technological growth. One does not become a scientist or an engineer overnight even if he is talented for such fields. Individuals with technical capabilities must be discovered and encouraged to enter fields of science. Public education must be the source of this preparation for scientific careers.

Competent and socially aware educators should be functioning at all levels in education administration. A standard curriculum of public education, dictated by the requirements of the present stage of scientific development and future needs, should be installed throughout North America. 'The way the twig is bent' never had the meaning that it has at this time.

While a scientific educational program for youth is being developed, a program to generate public interest in science must also be inaugurated. Science needs to be popularized among the general populace. The stigmas attached to science and scientists by politics can be removed by making science and scientific accomplishment a part of everyday conversation. A new social morale will grow from such a program which will develop cohesion and which will be amenable to scientific direction. This morale will be the life insurance of this civilization. No type of political organization can substitute for scientific organization in America's future.

Lack of National Awareness

In local political administration is found another example of the tremendously costly and deleterious influence of supernumerary governments. There are 51,881 such administrations in the United States, exclusive of the federal government. When analyzed down to their basic functions, these governments have little if anything to do of functional importance. They collect and disburse money [which we no longer need to operate industry and to distribute goods and services], and they attempt to preserve inviolate the concept of ownership by legislating civil laws to protect the 'haves' from the 'have nots.' By their very nature, these governments cannot be concerned intelligently with the problems of living in a scientific environment. A characteristic of these local governments is an almost total lack of national awareness. They reflect the microscopic thinking of the local citizenry. Every community with a hamburger stand and a gas station envisions itself someday as growing to a great metropolis. Every state envisions itself as the site of a great, or greater, industrial empire. No consideration is given to where the community or state fits into the much larger picture of North America.

The politicians and citizens of the political subdivisions believe that their brand of politics will make their dreams come true. The main interest of local political governments is to attract business activity to carry on a wasteful and inefficient exploitation of the available resources. This enhances the prestige of the local politicians and makes them feel wise and powerful [and incidentally tends to make them personally prosperous through their little deals with business].

In the anarchy of local political administration here, one sees a tunnel being poked through or a bridge being built around a town to relieve temporarily increasing traffic congestion; there, a strip of brokendown roadway being coated with asphalt; and somewhere else, a peewee sewer or waterline being laid. Not a city or a community in the United States has been planned to fit into future North America. In fact, there has been little planning of any nature for community growth. The engineering skill that has been used to date in community growth has been directed to the end of making it possible for people to live in the urban and suburban mess created by politics.

In spite of political government a new system of doing things is coming into being. A future functional administration is developing with the growth of technology in North America. This future administration is to be found scattered throughout industrial and service functions. It is composed of the technically trained personnel of all of the vital functions of this economy. Its activities are growing more and more distant from politics and business, and are tending to deal only with the development, operation and maintenance of the physical equipment and services of this civilization. This is particularly true of the more complex industries. Even now one can observe in plant operations a separation of Price System and purely functional motivations in doing a given task. Knowledge, equipment and materials are the important considerations. While, under the Price System, the trained personnel work for debt tokens to live, they know that they don't have to use money to do the things they are doing.

Engineering Plan Required

To put it simply, we have the knowledge, the equipment and the resources on this Continent to produce and distribute an abundance of goods and services to every citizen of North America. We do not need, and cannot tolerate, the interferences of the Price System if we are to have a worthwhile future. We require only a blueprint of social operations, in other words an engineering plan, to pull together the personnel, equipment and materials that are required to produce and distribute an abundance. Technocracy has the blueprint which includes all of the basic specifications to set up a technological social operation on this Continent.

It seems rather important to point out that in setting up a technological administration, the most unusual thing done will be to **eliminate the interferences** of politics and business, something like eliminating the static in a radio so that you can hear what is going on. No one can tell a mechanical engineer that he cannot build something that has been designed if he has the equipment and materials with which to work. He could only be prevented from building an object if deprived of the means to do so. This is the function of the Price System—to interfere with technological progress.

The Sole Concern

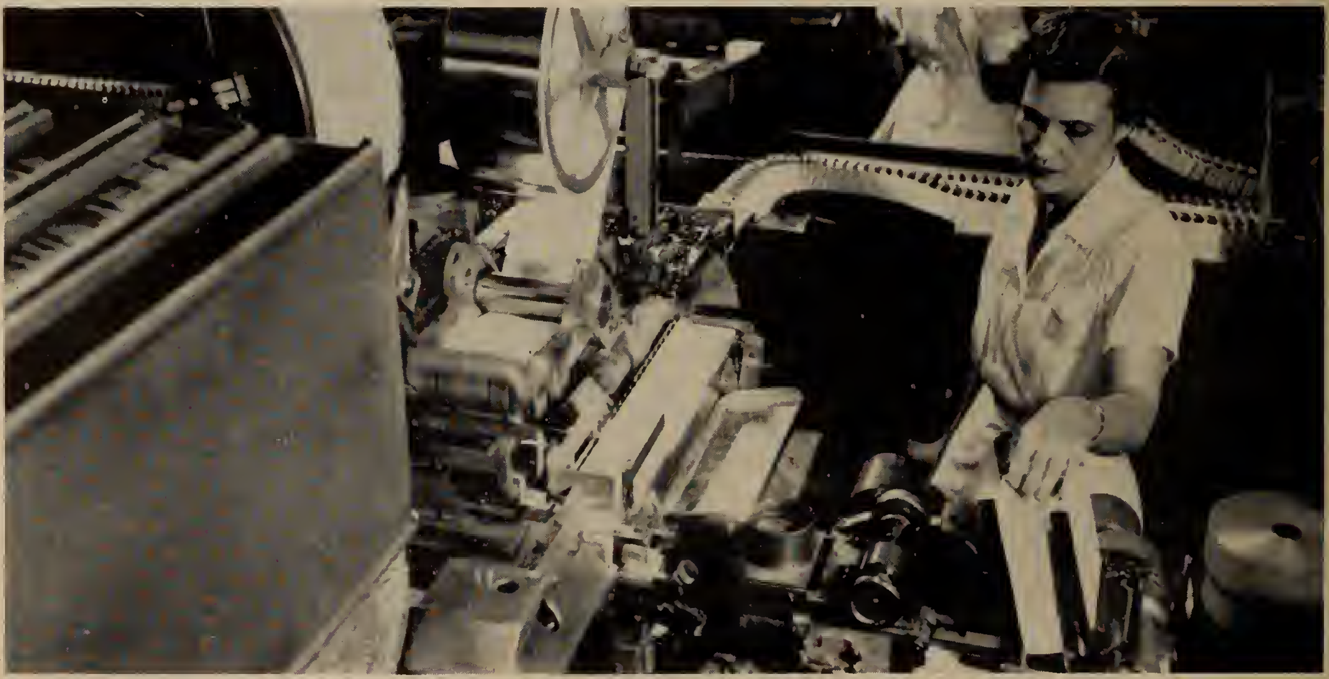
The supreme authority for the continued interference of the Price System is, of course, the federal government which is composed almost entirely of lawyer-politicians and other chiselers. Preserving the status quo is the sole concern of this 'representation of the people.' The functions of national political government are much the same as local political government except for the fact that the stupidity and the blunders are on a grand scale. It has approved the gutting of the nation's resources, leaving Continental United States a 'have not' nation; it has resisted all demands of the social situation on this Continent for the competence of scientific social administration and persists in regarding as subversive the technically trained personnel of this Continent; it has approved the involvement of the United States in one disastrous international situation after another, even making it possible for the disasters to occur, as in the case of Germany, Italy and Japan, when it looked the other way while American business assisted to arm these countries for World War II; it has denied the needs of its own people while it has approved the shipment of irreplaceable resources to countries around the world who have learned to hate America; it has approved heartily of the destruction of the last vestiges of U. S. natural resources through deliberate waste and inefficiency by business enterprise; it has permitted social problems of crime, disease and economic insecurity to remain a constant threat to the inhabitants of the United States; it is directly responsible for the slaughter of 40,000 people every year on inadequate U. S. highways by failing to adopt a program of highway engineering that would prevent most of the accidents; it has sabotaged public education, forcing the United States to take a second place in world technological progress; it has been inseparably allied with business enterprise in fighting to destroy the abundance which applied technology has made possible; and last, but far from least, it has participated, with business and ecclesiasticism [especially Roman Catholic], in the systematic brainwashing of the citizens of the United States until now even the minority of individuals with a modicum of sense appear to be dead from the neck up.

The time has come when the people of the United States must adapt themselves to one technological government, not 100,000 political governments. This holds true for all of the other political divisions of North America. A scientific social operation would be a government of things—not people. In the past, every government in history has been founded upon the need to control people because they were the main means of producing things. Now that technology is the means of production, the emphasis in government must shift from people to things. This does not suggest that people will cease to be important in government. On the contrary, every last individual in North America will become a part of a technological government. His primary role will be that of a consumer, dictating to the industrial machine what he wants by what he consumes. Since an accounting system, not money, will be used to distribute goods and services, there will be no point in attempting to sell anything to the consumer. It will simply be a matter of making goods available to the consumer. If he likes them, he'll consume them; if not, product research and development will make something else available.

A new and effective role in technological government will be played by everyone functioning in any type of job. They wil have not only the possibility but also responsibility for taking a direct part in a technological government on the basis of their knowledge of the field in which they function. In other words, the total operation of a Technate will be governed by needs, wants and knowledge. Nothing like it has ever been proposed or used anywhere in the world at any time. Political government, no matter what its name label, becomes pallid and stupid alongside a concept of government designed to function as an integrated whole.

Technocracy calls for your support before the present government by political incompetence wrecks this civilization altogether. It has already done more damage than you should have permitted.

—HARRY BRIGGS, 12247-1



130 packs of cigarettes per minute are wrapped, sealed, and revenue-stamped in the newest cigarette-packing machine at a Richmond, Va., plant. Paper-backed foil is fed in from large reels (left), revenue stamps enter from chute (center), and labels come from stock under operator's hand. (Photo courtesy of United States Tobacco Co.)

DEVELOPING TRENDS

U. S. LAGS IN RISE OF INDUSTRIAL OUTPUT

Even before the current recession the U. S. under the Eisenhower Administration was lagging far behind the other leading countries of the free world in increasing its industrial output—the chief basis for both rising living standards and military power.

Figures revealing this sobering fact are contained in the annual economic report that President Eisenhower sent Congress recently. Ike offered no explanation for America's relative lag since 1953. Stories in the daily press about his economic report didn't even mention this side of the picture.

A table on "World Industrial Production" in Ike's report stated that such production in the U. S. rose 7 per cent between 1953—the first Eisenhower year—and the second quarter of 1957, just before the current recession.

For other leading free nations during the same period, the table gives this picture of industrial output increases: France, up 43 percent; West Germany, up 48 percent; Italy, up 37 percent; Great Britain, up 16 per cent; Canada, up 15 per cent; India, up 49 percent; Japan, up 64 percent.

Thus, while America still remains the world's leading industrial power, it has lost considerable ground during the past five years.

Ike's report gave no figures for countries of the Soviet bloc. However, Soviet Russia reportedly increased her output 10 percent during the past year alone.

—Labor

—This item fails to point out that under a Price System industrial production cannot increase in the face of abundance.

ELECTRONICS REPLACING PAPER WORK AT FIRM

NIAGARA FALLS, N. Y.—A project headed by a former Montclair, N. J., man is replacing all of the Carborundum Company's basic paperwork procedures with automatic, electronic handling.

William A. Ferguson, Jr., a graduate of Montclair High School and Dartmouth College and a former Army major, is manager of the company's data processing branch which will convert to automation all basic paperwork from customer orders through financial reporting.

Gen. Clinton F. Robinson, president of the firm, which manufactures abrasives, refractories and nuclear reactor materials, announced that the unique 'total systems' approach to electronic data processing is approaching full operation. It already has improved customer service, sales coordination and management control, he said.

The project involves use of a Remington Rand Univac tape-to-tape converter, information feeders, a central computer, and supervisory control center, as well as installation of an AT&T communications system.

—Newark Evening News

—The white collar worker is destined to be next in line at the unemployment insurance window.

RECESSION LAID PARTLY TO PLANT AUTOMATION

WASHINGTON—Two union officials contended recently that automated factories have not produced the expanded employment and lower prices they said experts had promised.

Albert Whitehouse, director of the AFL-CIO Industrial Union Department, and Elmer J. Maloy, industrial engineering chief of the Steelworkers Union, said automation so far has proved to be the bane rather than the boon of the American worker.

Both blamed the recession at least in part on new automatic machines, many of them guided electronically, that have provided increased industrial capacity with fewer workers.

Both advanced these views in talks prepared for a conference on automation problems called by the IUD.

'It's time to point out that automation and other major technological changes have failed to bring automatically those things promised so blithely,' Whitehouse said. 'Where are the great numbers of more highly skilled jobs? Where are the lower prices? Where are the jobs for everybody that were virtually guaranteed to us?

'Some of us have been kidding ourselves about the purpose of technology under our enterprise system, and probably under any other system. The purpose of better machinery is to cut labor costs by eliminating jobs.'

Maloy said the steel industry has doubled capacity in a few years using fewer production workers. He said the auto industry has enough capacity for triple the country's demand and requires fewer employees.

'The big problem in America is not production,' Whitehouse said. 'Today's technology calls for higher wages and higher living standards with fewer hours of work. Unless they are forthcoming, all of us may find ourselves threatened by the plenty we are now able to produce.'

—Newark Evening News

—Technocracy alone has been stating through the past several years that machines eliminate jobs.

U. S. DEBT INTEREST

The Administration's interest-boosting 'tight money policy' is putting a heavy and increasing burden on taxpayers. That was pointed out in the Senate and House.

Congressman D. R. Matthews (Dem., Fla.) said the interest on the national debt is $2 billion a year more than it was in 1952, just before the present Administration came in.

'That is correct,' Congressman Wright Patman (Dem., Tex.) commented. 'We are paying $2 billion more interest than we did five years ago on a debt of about the same size.'

Senator Hubert H. Humphrey (Dem., Minn.) read to the Senate an article written by financial columnist Sylvia Porter. She pointed out the startling fact that 'of every dollar you pay in Federal taxes this year, 11 cents will go to pay interest to owners of U. S. government securities.'

Of all the spending items in the President's budget, Miss Porter said, interest on the Federal debt takes more money than anything else except national defense. In the coming year, 'the Treasury will shell out in interest $2.9 billion more than the President proposes to spend on all veterans' services and benefits, and $4.3 million more than the President proposes to spend on all farm programs.

'The interest bite is more than double the total spending for all labor and welfare programs. It dwarfs into insignificance the amounts the President proposes to spend on international affairs, general government, commerce, housing, or conservation of natural resources.'

Humphrey told the Senate that 'it has always amused me to note how the critics of Federal spending so seldom call attention to the mounting interest payments on the national debt. The cause of this tremendous increase is the higher interest rates brought about by the Administration's tight money policy.'

—Labor

—A Big Business government, naturally, is in the business of taking money from the lower income groups and redistributing it to the major holders of debt.

KAISER PLANT CLOSE SLATED

WASHINGTON—Closing of Kaiser Aluminum Company's Tacoma, Wash., reduction plant May 1 and further cutbacks in production at the Spokane reduction plant were announced by company officials.

Company officials said the action resulted primarily from the General Services Administration's continued refusal to buy aluminum which the company says the GSA is obligated to purchase under one of its supply contracts.

The Tacoma plant closure and production cutbacks at Spokane, officials said, also will force laying off workers at Kaiser's Louisiana plant. About 850 persons will be cut from the over-all work force in the two states in addition to the 1,150 previously announced.

Company officials in Spokane announced a 'slight increase in business' and said 100 laid-off workers would be temporarily recalled for work at the Trentwood rolling mill near Spokane.

A small backlog of special orders would give 100 workers 'at least a few days of work,' officials said.

No mention of the rolling mill facilities was made in the announcement.

Kaiser officials also announced postponement of plans to lay off about 380 men at the reduction plant north of Spokane for at least a week. They had been scheduled to be laid off March 31.

—The Oregonian

—Ike can explain this away easily.

HUGE COPPER 'CAKES' CAST

Huge 25-foot lengths of copper ingot will be continuously cast for the first time on a commercial basis at American Smelting & Refining Company's new multi-million dollar refinery installation in Perth Amboy, N. J. The plant provides a revolutionary new means of making the world's largest 'cakes' of copper, from which rolling mills can roll sheet and strip more efficiently and economically. The Asarco-designed facilities include the world's largest direct arc copper melting furnace, for continuous melting of the red metal at a rate in excess of 30 tons an hour. Secret of the new continuous process is a new kind of vertical, water-cooled graphite mould assembly, equipped to dissipate heat at a rate faster than any known similar facilities. The copper hardens as it travels into the 'bottomless' mould assembly, which is oscillated by a reciprocating gear, in order to prevent the ingot from sticking in the mould. The new installation can produce more than 160 tons of the huge copper ingots during each eight-hour shift.

—New York Herald Tribune

PATTERN SEEN IN RECESSION

WASHINGTON—The committee for economic development said recently the business slump already is as bad or worse than the two previous postwar recessions and there is no reason to believe it has reached bottom.

Alfred C. Neal, president of the group of businessmen, told the house banking committee that the current recession has followed the pattern of the 1948-49 and 1953-54 slumps.

In recent months, however, he said, 'the decline has become steeper than its two predecessors and in several respects has already gone as far as or farther than either of them at their worst.'

—The Oregonian

—We haven't seen anything yet!

USE OF SILICON RECTIFIERS SOARING

New low prices and a mass production start on a silicon power rectifier by the General Instrument Corporation will open a $100,000,000 annual market in two years, the company said recently.

The device, a tiny semi-conductor akin to the transistor, chalked up a sales volume of $20,000,000 last year. Transistors, miniature rectifiers and other semi-conductors, are power-converting and channeling devices in civilian and military electronic products that substitute for the much larger vacuum tubes.

Martin H. Benedek, General Instrument chairman, said the devices, used in products ranging from television sets and office computing machines to radar and guided missiles, would sell as low as 40 cents each for quantity purchases for end use in commercial and consumer items. The new rectifiers will bring $1 to $20 each for 180 kinds as components of military and industrial electronic wares.

The new silicon devices, Mr. Benedek said, are three-hundredths of a cubic inch in diameter. They perform in a television set the same power conversion function as vacuum tubes 590 times their size and thirty times their weight. In addition, the rectifiers are virtually impervious to heat, operating at full efficiency at 212 degrees Fahrenheit.

—New York Times

—Another benefit to man seen first as a lever with which to pry out a profit.

SOLAR FURNACE HITS 5,000 F.

CANOGA PARK, Calif.—The Rocketdyne Division of North American Aviation, Inc., announced it is conducting experiments with a solar furnace in which a temperature of 5,000 degrees Fahrenheit is reached easily with use of the natural energy of the sun.

The research laboratory, including a 60-inch searchlight and a reflecting surface of one-inch thick special glass, has been set up in the Santa Susana mountains.

—The Oregonian

—This is a field that we should be exploring on the same scale as we are exploring atomic energy.

MACHINE CUTS WORK-TIME

Work time has been reduced by as much as two-thirds with the split-table design of one of the nation's largest planer-type milling machines, recently installed in the Dunellen, N. J., plant of R. Hoe & Co., Inc. The 150-ton machine turns out bedplates, side frames and columns for heavy newspaper presses. One man can operate any or all of the four independent milling heads to produce tolerances up to 0.0005 of an inch from a movable pendant station.

—New York Herald Tribune

TECHNOCRACY

North America's Only Social Dynamic

WHAT?

Technocracy is the only North American social movement with a North American program which has become widespread on this Continent. It has no affiliation with any other organization, group or association either in America ro elsewhere. The basic unit of Technocracy is the chartered Section consisting of a minimum of 50 members and running up to several hundred. It is not a commercial organization or a political party; it has no financial subsidy or endowments and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are $9.00 which are paid by the member to his local Section. Members wear the chromium and vermilion insignia of Technocracy — the Monad, an ancient generic symbol signifying balance.

WHEN?

Technocracy originated in the winter of 1918-19 when Howard Scott formed a group of scientists, engineers and economists that became known in 1920 as the Technical Alliance—a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934 Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundation of the present Continent-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses, or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing!

WHERE?

There are units and members of Technocracy in almost every province in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces. Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the nearest Technocracy unit.

WHO?

Technocracy was built in America by Americans. It is composed of American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this Continent. Membership is open only to American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective office or active office in any political party.) Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher or housewife—so long as you are a patriotic American—you are welcome in Technocracy.

Pamphlets

Introduction to Technocracy	25c
America Must Show the Way	15c
Our Country Right or Wrong	15c
Continentalism—The Mandate of Survival	15c
Make Way for Social Change	15c
I Am the Price System, and The Culture of Abundance	15c
Man-Hours and Distribution	15c
The Energy Certificate	15c
Science versus Chaos	10c

SUBSCRIPTION ORDER

To: THE NORTHWEST TECHNOCRAT
2208 Eighth Avenue
Seattle 1, Washington

Enclosed herewith is $..................to cover.................. subscription(s) to Technocracy's Magazines for........ years.

All Three Magazines, 12 months, 12 issues, $3.00. (All three publications are quarterlies, but so rotated that one appears each month.)

THE NORTHWEST TECHNOCRAT
TECHNOCRACY DIGEST
THE TECHNOCRAT

☐ This is a NEW subscription.

☐ This is a RENEWAL subscription.

Name..

Address...

City..............................Zone..........State.........................

(or) City..............................Province..............................

(Foreign rates, other than Canada, Mexico, and U. S. territories, 20% (60c) additional to above rates.)

The New Statesmanship

There must arise very soon on this Continent a new statesmanship, a new type of leadership, and a form of organization never before developed. National direction to a new social order will never be found in the political leaders or parties of this Continent. If this Continent continues on its present course, this era will come to an end in the violence of conservative reaction and the fanaticism of mob hysteria.

The statesmanship of the New America exists today across this broad land of ours in the personnel, not of the debt merchant or the politician or the gangster, but in that personnel which daily in every walk of life is designing, constructing and operating the physical equipment of this Continent.

TECHNOCRACY
PROVIDES THE DESIGN
FOR THE
DISTRIBUTION OF ABUNDANCE
TO
ALL NORTH AMERICANS

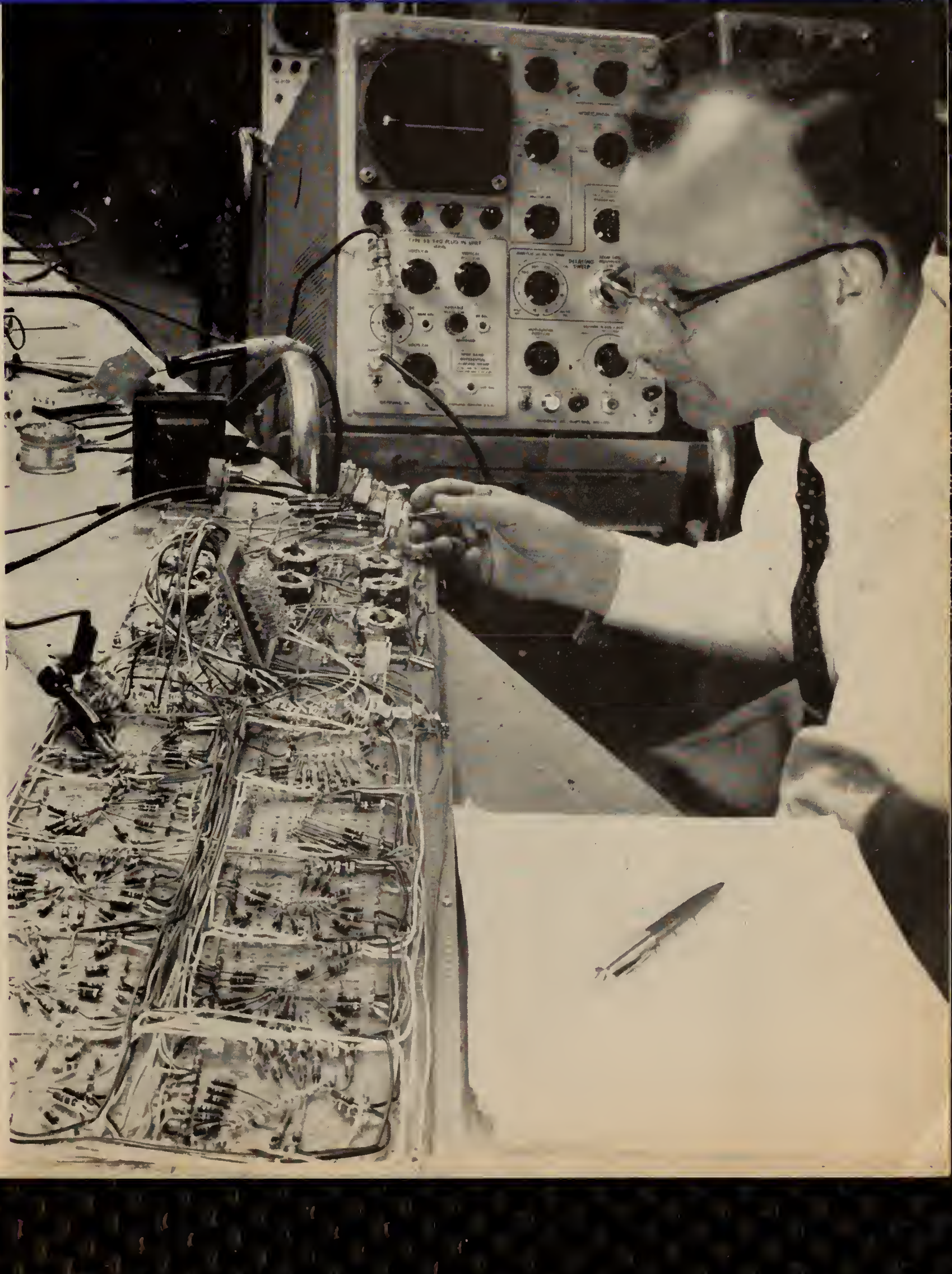
Ph. GA 4-8352

GROUP A. R.D. 11353
TECHNOCRACY, INC.
BOX 653 EDMONTON

THE NORTHWEST

Technocrat

OCT. 58



IN THIS ISSUE:

- How Is Business?
- One For All And All For One
- Homo—The Sap
- The Answer to America's Problems

No. 193 (Vol. XXII)

25¢

Sec. 3, R. D. 12247
TECHNOCRACY INC.
Seattle, Washington

LOOKING FOR A JOB?

First, the overtime was lopped off employment incomes; then, the regular work-hours per week were reduced. Now, millions are without any paying work. In the meantime, since the war prosperity began, the American public has developed a mania for getting and spending money. To abandon that mania is far more difficult than it was to acquire it. But, to many, that hopeless feeling of being doomed as a loser and a failure is taking hold. The students who have been getting well-paying summer jobs find that, this year, all jobs are filled by desperate adults and there is no placement for them.

The official figures on income continue to show increases in terms of dollars. But the dollar continues to buy less and less. Increases in hourly wages are cancelled by higher consumer prices. Locally, some places are in desperate circumstances due to heavy unemployment; in other places, employment is holding up for those who have jobs—but there are no new employment opportunities. Agriculture is passing out of the picture as a major seasonal employment cushion.

America is the greatest and richest and most promising country on earth, so we are told. We have more bourgeoisie and bourgeois aspirants than any nation on earth. The great majority of Americans go bourgeois at the first flush of personal prosperity. When economic adversity affects the bourgeoisie, it is far more disastrous than merely a reduction of economic standards; it means a change in their way of life and the destruction of their life's aspirations. Therein lies a major danger for North America. The bourgeoisie, rather than adjust to failure, tend to go berserk.

ON THE INTERNATIONAL FRONT

The United States is seeking an honorable way out of Lebanon. But our Middle East concern continues to be oil. Arab unity is an irritation, for that means the price of oil goes up.

The summit meeting was finally sidetracked and a great sigh of relief went up in Washington and the President was given the afternoon off to play golf. Talking goes on at the United Nations with little prospect of peaceful accomplishments.

Now that the attempted insurrection in Indonesia has failed, the U. S. is attempting to appease the central government. Indonesia has oil, rubber and tin.

France, under De Gaulle, has found no solution to its economic problems. The new constitution does not provide that solution. Like Britain, Italy and Japan, France can hope only to suffer through year by year.

STRUGGLE FOR TECHNOLOGICAL LEADERSHIP

Since the launching of Sputnik I, the technological leadership of the U. S. A. has been in doubt around the world, at least propagandawise. Our frantic efforts to recapture the 'championship' have been none too successful. With the under-ice trip of the Nautilus over the North Pole, we were on the upgrade and we expected to top it off with an Air Force shot at the moon. The moon rocket was a conglomeration of separately designed parts. The moon shot was a floperoo and so is our technological prestige. We should have learned long ago that national projects and Free Enterprise constitute a poor combination. It is safe to predict that America will never regain technological leadership of the world under Free Enterprise.

—Techno Critic

COVER PICTURE

Complex Electronic Circuit

An engineer in the Specialty Electronic Components Department of General Electric Corporation, Auburn, New York, studies a complex circuit which is used to integrate advanced equipment in the field of automatic packaging. (Photo courtesy General Electric, Specialty Electronics Components Dept., Auburn, N.Y.)

OCTOBER 1958

THE NORTHWEST
Technocrat

GROUP A. R.D. 11353
TECHNOCRACY, INC.
BOX 653 EDMONTON
Ph. GA 4-8352

HOW IS BUSINESS ?

Any activity whose primary objective is the redistribution or manipulation of monetary wealth may be regarded as a social deficit, and without it, we may assume, the welfare of the people and the society would be improved.

THE MAJOR preoccupation of Americans in general is business; that is, the selling of something for money. Even the laborer is in the business of selling man-hours. The concepts and practices of business are taught to the young at a very tender age. Some learn exceedingly well and, having no other commodity to sell, they sell obedience. Further, they soon learn to deliver a shoddy quality of this 'merchandise' and to charge all that the 'market' will pay. Having learned this lesson, the young American is well on the way to being qualified for the 'American Way of Life' under the Price System. The features of business enterprise pervade the whole society and characterize our social ideals.

When you ask another American, no matter how old or how young, 'How's business?' you are referring to something close to his heart. It makes him feel that you are his buddy. 'How's business?' is a most appropriate greeting.

One's success at business is a matter of pride and prestige; hence, one is inclined to state his business conditions in terms that are much more rosy than strict respect for realism would permit. However, we as businessmen make one regular exception in this behavior tendency: for the tax assessor, we have a tale of unutterable woe. But, then, that is in the interest of our business; because, if one can evade taxes or other assessments, it is as good as earning profits. For the benefit of the public, it is customary for us to exhibit a facade of business success. We also like to boast about the sharp deals and the deceptions we have successfully pulled off. Therefore, when you ask your neighbor or acquaintance 'How's business?' you are not likely to get a straight answer.

Since much of the businessman's talent extends into the fields of bluff and pretense, he knows that he is not as successful as he would have others believe. He has troubles that he would like to talk about in places where his business prestige is not at stake. Hence, to those who have his confidence and to whom he does not have to maintain pretense for business reasons, the typical American is eager to unburden his soul and elaborate on the bad luck and shortcomings that beset his business. But, even then, he protects his own ego by fixing the blame on the incompetence or mischief of others.

Over recent years, there has developed a gradual change in emphasis with respect to business. Business interests and practices are assuming a more dominant part in the life of the individual. More and more of our activities and interests are becoming tied in with business dealing. And it is becoming more and more difficult to separate what we do from the evaluations of commerce. At almost every turn we make, money changes hands.

Up until recently, a great majority of the people on any area was involved in basic production—agriculture, timbering, fishing, mining, manufacturing and processing. They contributed directly to the physical wealth of the

The Northwest Technocrat is published quarterly by Section 3, R.D. 12247, Technocracy Inc., 2208 Eighth Avenue, Seattle 1, Washington. Entered as second class matter July 11, 1949, at the Post Office of Seattle, Washington, under the act of March 3, 1879. Subscription rate is $1.00 for four issues. Single copy 25 cents. Continental Headquarters of Technocracy Inc are located at Rushland, Pennsylvania. Entire contents copyrighted 1957 by Section 3, R.D. 12247, Technocracy Inc.

area, albeit on a small scale and by difficult means. This wealth supplied the physical needs of the people. Those who did not contribute to production directly, contributed to the welfare of the society indirectly or they lived off it parasitically, at least saprophytically. Some were engaged in necessary services, hence were essential functionaries in the society. Others, because of age, youth, disinclination, or incapacity, were carried as dependents. Others lived off the blood and sweat and tears of the community; they were the parasites. Others were 'kept' by the parasites or by the accumulated wealth of deceased parasites; they were the saprophytes. But the great majority worked in production.

The physical wealth of an area is still the base for human welfare. Its production still constitutes most of the essential functioning in the area; the rest is accounted for by service functions and by the required administrative procedures. That which contributes to the welfare, efficiency, and joy of the population may be classed as socially useful; that which detracts from, or fails to contribute toward, welfare, efficiency, and joy may be classed as socially destructive. In the latter category fall nearly all business enterprise, finance, politics, advertising, and accounting. It involves more than half the employment of the United States at the present time. Any activity whose primary objective is the redistribution or manipulation of monetary wealth may be regarded as a social deficit, and without it, we may assume, the welfare of the people and the society would be improved. Most such activity is covered by the term 'business.' Thus it is reasonable to conclude that whatever is good for business is bad for the people.

At present only a minority of the people of the United States are engaged in the production of physical wealth. Even so, only a fraction of these are engaged in production as primary producers. Most of them merely sell their man-hours to corporations which, in turn, administer the production. For most Americans, the sale of man-hours, whether in production or not, is merely incidental to the acquisition of money. For most of the employer corporations, production is only incidental to business enterprise.

Dependence On The Marketplace

The great majority of American people no longer have direct access to the sources of the things they live by. They must negotiate for those things in the marketplace. This applies even to those people who are still working at the sources of production; for, their easy access to goods is so limited as to variety that their dependence on the marketplace for all their other requirements places them in about the same position as the people who are far removed from any source of production.

In modern times, dependence on business for the maintenance of life has grown in degree and extent. With the efficient application of technology to the means of production, the small independent producer is rapidly disappearing. Small farmers, for example, are going out of the farming business at an unprecedented rate. More Americans left the farm in 1957 than in any previous year. The small independent miner, logger, fisherman, and craftsman are being engulfed or smothered by large corporate enterprise. The self-sufficiency of the old pioneer homestead is a thing of the past. Now, we are all dependent in the extreme on busi-

CONTENTS

No. 193, Vol. XXII — October, 1958

	Page
How Is Business?	3
One For All and All For One	9
Homo — The Sap	10
Super Colliers	12
The Answer to America's Problems	14
Have You Observed?	19
Technocracy In The Field	20
Continuous Concrete Road	23
Developing Trends	25

EDITORIAL BOARD

Editor . . . . George Kellogg
Assistant Editors . . . . . Ruth Berge
Harry Briggs
Editorial Assistant . . . . . Fred Botts
Business Manager . . . . Rina Corcoran
Circulation . . . . Lucy L. Barnes

Printed in U.S.A. by volunteer and union
labor on Technocracy's own press

ness enterprise for nearly everything that affects our pursuit of life, liberty, and happiness; and the compromises of business expediency regulate our conduct. If you would work for a corporation, hold membership in a labor union, sell merchandise to the public, or sell sermons to churchgoers, you dare not take an intellectual position or engage in conduct which is deemed harmful to business enterprise.

The one thing that is deemed most harmful to business is collective enterprise for mutual benefit. Collectivism takes too many short-cuts through the tangle of business enterprise and by-passes too many markups and pay-offs. No group or sect can engage in collectivism for mutual benefit on this Continent with immunity. Even the peaceful, law-abiding sect known as the Hutterites, which practices an efficient form of collective living, is under persecution by all the upholders of business enterprise, from the federal governments of the United States and Canada on down.

Science and technology work to make life easier and more pleasant for us; but business and politics operate so as to make living more restrictive and complicated.

As a matter of social 'progress,' business has become our way of life. We tend to evaluate everything in terms of monetary equivalents, including our time. We feel that we are 'wasting money' if we fail to use our time profitably. The acquisition of money or the enhancement of the monetary value of the things we own has become a passion if not a mania. We tend to allocate our time and effort so as to bring the maximum return in money. We modify our own behavior and that of our families to conform with the patterns approved by the business world. We tend to exceed the capacity of our economic means in order to pretend to the neighbors that we are greater business successes than we really are. The bourgeois way of life has become the American ideal.

Even after the American 'businessman' has acquired sufficient fortune to maintain him in comfort for the rest of his days on earth and to bury him in style, he is still impelled to risk his fortune and health, and to expend his time, effort, and peace of mind, to continue in the business struggle. Part of it is due to habit fixation, but a large part is due to the fear of being socially disdained as a 'quitter.'

If one is not actively engaged in business, regardless of his circumstances, he is supposed to feel that he is lacking in 'character'; and, no matter what the mitigating circumstances may be, society [that is, the neighbors] consider him somewhat of a renegade. People who are retired assume more social respectability if they have their retirement funds 'working' for them in some business enterprise and if they pick up a few odd jobs now and then. Even severely handicapped persons are expected to do something for a living.

In order for one to be a business success, one must somehow get money from other people. The manner of getting it is secondary to its actual acquisition. In America, all money is green regardless of its source. It is far more honorable to be a gangster than to be a bum. [A bum is a person without visible means of support; that is, without profitable business connections.]

The degree and amount of business success in the community and in the country as a whole depend on how much money is available for 'circulation.' The more money there is and the more it circulates, the more business there is and the more prosperity. Everyone is eager to get more money and to put it into circulation. Anyone who happens to have money is fair game for all who are in the business of getting money. The merchants, gamblers, investors, swindlers, hi-jackers, laborers, job-seekers, and peddlers of goods and services of all kinds are impatient to get it away from him. The automobile merchants have been particularly aggressive this past summer. If business prosperity is slackening off, it is not due to a lack of 'willing workers.'

Attempts to Manipulate

During the Great Depression, money was scarce and business was bad. Nobody wanted it that way, least of all our business and political leaders. They were as desperate as a family whose television has gone off in the middle of an exciting program and who proceeds to slap and bang the television set around in the hope that it will start up again. After various astute attempts to manipulate the national economy, such as the revaluation of gold, destruction of 'surpluses,' wholesale relief programs for individuals and corporations as well as for the major business blocs, and the promotion of public works programs, they still were unable to do more than hold the economy at a minimal level. Prosperity did finally return, but only after the injection of hundreds of billions of new dollars into the system. It took World War II to provide the motive and the means for such gigantic injections.

Where did all this new money come from? It was created out of nothing. It was money created out of nothing which brought business prosperity and individual success to millions of Americans during and since the war. On the whole, Americans considered the war a reasonable price to pay for a business boom.

The evolution of money is an interesting historical study. Very briefly, it progressed through the following steps: The first and most primitive manner of doing business was by the direct exchange of physical goods or services. Since there was no standard of value or medium of exchange, this involved mutual agreement regarding equivalent values. The second step came into being with the standardization of values in terms of some one commodity in general use, albeit the standard was subject to wide fluctuations depending on the degree of scarcity and desire. Next, the standard was switched to some scarce metal. This was physically stable, was of relatively small size, and could be made into precise units of weight. But the metal was not, in most instances, usable as such by the possessor. Its value lay in its acceptance as a medium of exchange for other goods or services which were of direct use. The fourth step was the issuance of paper certificates which represented specified amounts of certain scarce metals, usually gold or silver, and which were redeemable in those metals. The fifth step was the issuance of certificates which had no backing other than the promise of the issuer. The issuer may or may not have gold or other goods of equivalent value on hand. The last phase of this step is the issuance of papers which are presumed to represent money; such as checks, promissory notes, debentures, stocks, credit slips. These are often no more than mere promises to pay at some future time. They may or may not include the payment of interest—a sort of bribe to entice the receiver to take the risk of accepting them. Sometimes, these promises to pay are redeemable only in new promises to pay.

Thus, money can be in the form of physical goods or it can be completely illusory or any stage in between. The status of most money in the United States today is that of illusory notations. This is the kind of money with which most Americans do business. Its value is determined by the willingness of the receivers in general to accept it.

In the United States, monetary inflation has been very modest since the depression. Most things cost no more than two to five times what they did during the 1930s. As inflation goes, 'that is nothing!' On the other hand, there has been a huge amplification of credit. Almost anyone is able to create credit money by simply signing a piece of paper. For example, he can buy a home, a car, a household gadget, or a suit of clothes with money he does not have; he creates money by signing a paper promise to pay. The individual does it; corporations do it; municipalities do it; and the federal government does it.

This illusory or fictitious money is just as good to do business with as gold so long as confidence in the promises back of it is maintained. Insofar as the whole economy is concerned, it is better than gold; for, there is more of it and it is more easily obtained and transferred. So long as confidence can be sustained, credit is virtual wealth —a usable form of money. When confidence fails, the promises to pay [currency, debt certificates, credit notations] lose value and may even become worthless. When that happens, the economy has to start over and build up a new structure of values from a physical basis; or it may receive injections of outside credit.

Promise to Pay

The federal government of the United States is in the position of having to redeem some eighty billion dollars of debt certificates each year—paper promises to pay. It does this by issuing new promises to pay; it does not have that kind of hard cash. Since the customers for these new promises to pay are getting harder to come by, the government is forced to sell the promises to the big banks in the form of short-term notes. The banks are presently willing to take them up for three reasons: To collect the interest which the government pays; to expand their own credits [on the basis of government notes on deposit]; and to uphold the value of fictitious money on which their banking institutions are built.

At present, fictitious money is easy to create while, at the same time, everyone's business aspirations demand more and more of it. Business, although somewhat apprehensive about the future, is eager to encourage new injections of credit into the system — through longer mortgages on real estate, lower down payments and longer periods of payment on credit purchases, higher wages, and upgrading of inventory and property values. All of this is contributing to general inflation; but it is also contributing to higher figures on the balance sheets, and figures are what business uses as its index of success.

During the depression, an average worker was glad to get $20 per week. Then, he could get butter for 25c per pound and certain grades of steak for 20c. Now, he can get around $80 per week and he pays 80c for butter and a dollar or more for steak. He is ahead, monetarily, only if he substitutes oleo for butter and hamburger [ground from old bulls and dairy cows] for steak. If the American worker would accept the same standards he had during the depression, he could, on the average, be a little ahead of the game [providing his job holds up]. But the general tendency has been to advance to higher standards and greater relative costs with each increase in dollar income. As a result, many consumers find themselves spending more money than they have coming in. The difference is made up by the issuance of promissory paper.

Confidence in the System

The United States has somewhere in the vicinity of a trillion dollars of paper values [debts] in circulation and on deposit. This has been built up out of confidence in the economic system of business enterprise, backed by the physical resources which supply our economy.

It would be a national calamity of the first magnitude if this confidence should suddenly collapse, accompanied by the inevitable demand that the debt certificates be redeemed in a hurry. There would be the greatest wave of suicides that any country has ever experienced. To the business ego, failure is worse than death. Every agency of the government, institutional finance, and corporate enterprise is on guard with all its resources to prevent such a loss of confidence. They know from the dark days of October 1929 that confidence can be quickly and badly shaken; and they know that the present situation is far more tenuous and potentially catastrophic than was the situation in 1929.

At the start of the Great Depression, there was a broad and substantial cushion of small farms, cheap homes, and small shops to support a large block of the population, albeit at a reduced standard of living. But now, with rented or heavily mortgaged homes, vital dependence on chain groceries for food, and almost full dependence on other merchants for the remaining necessities, a depression would hit with greater force and affect a greater proportion of the people. The only cushion they have is that of certain paper promises in the form of unemployment compensation, social security, relief, and insurance. Even if these promises were able to hold up, they are good for only a limited time and usually provide mere subsistence.

One may well ask: If we have come this far in our quest for prosperity on fictitious wealth, what is to prevent our continuing indefinitely? What is to prevent our going to even greater heights of prosperity and success? The principal hazards to this hope lie in two quite different directions.

One hazard is psychological. In order to create money out of nothing, one must demonstrate his probable capacity to redeem it at some future time. Or if one can present a case of such desperate need for it that it constitutes a life and death matter, one may be able to gain a certain degree of special consideration from the creditors. This has only limited application insofar as individuals and families are concerned. The federal government, under the emergency of war or threat of war, is the only agency that can capitalize on the emergency factor to any great extent. For most other economic entities, the tendency is to turn to the government for help in time of emergency. To date, the government has been able to maintain a suitable psychological atmosphere for large-scale debt creation only through war and alleged threats of imminent war. Under war emergencies, the government has an additional device at its command; it can compel acceptance of its debt certificates by citizens and institutions. It is probable that, when the threat of war is insufficient to uphold the debt structure, an actual war will be instigated to save the system.

The psychological factor is aggravated by a number of contradictions within the Price System itself. For one thing, it is necessary for business enterprise to mark up the price of goods for the sake of profit; hence, under balanced operations, more is taken out of the system than is put back in. Only through continual expansion of business is this discrepancy apparently overcome.

However, the psychological factor is the lesser of the two major obstacles to permanent prosperity based on debt. The other and more critical factor is that of physical resources. It so happens that prosperity is also based on such crude things as iron ore, coal, petroleum, non-ferrous metal ores, uranium, and mineral fertilizers. For the most part, these resources are irreplaceable. Every ton that is used is gone forever. The total supplies are limited; and, already, we are running into serious shortages in the United States. Only by looting the rest of the world has America been able to maintain its rapid dissipation of several significant resources.

As time goes on, it is evident that we must go to war to plunder the resources of other areas or face impoverishment. Our own supplies of petroleum, iron, copper, lead, zinc, mercury, aluminum, tin, tungsten, sulphur, and a number of other minerals are becoming deficient within our national domain, and these are getting progressively scarcer relatively to our needs. At the same time, other nations are becoming industrialized and will require all the resources they have, and more. Without resources, American business would be in a very bad way. Since all of us are dependent on business, that means each individual is due to suffer economic curtailment and possibly early privation.

So, when Americans ask the question, 'How is business?' it has deeper significance than merely day-to-day success in buying and selling. They may not, as individuals, be aware of it; but, just the same, the distintegrating factors are eating away at the system relentlessly, week after week and year after year. Most heads of consumer units depend on jobs for their economic security. Without a job, they would quickly sink into desperate circumstances. If it doesn't happen to too many, the society can carry them on an insurance or relief basis. But if we should have some fifteen million unemployed again, the burden would become intolerable. It would mean that the concepts and practices of business enterprise would have to undergo drastic revision if not outright repudiation.

Let us briefly summarize the trends which spell doom for business:

The first in importance is the depletion of vital resources which are needed to provide a physical basis for commerce.

The second factor is technological efficiency, which produces abundance and at the same time eliminates jobs. Lack of jobs diminishes consumer purchasing power. Abundance destroys scarcity values.

The third factor is slowdown of expansion. Business enterprise can succeed only where there is continuous expansion. But no physical thing can expand indefinitely. We are rapidly approaching the limits of feasible expansion. Automobiles, construction, retailing, and armaments have reached the place where stability, much less expansion, is difficult to maintain.

The fourth factor is an over-amplification of fictitious money, backed by nothing but the confidence of the dealers, manipulators, and the consumers.

A fifth factor is concentration of business enterprise into fewer and larger units. The largest enterprises are getting even larger; the merely large enterprises are being absorbed or squeezed out; the small enterprises are disappearing. The fewer the enterprises the greater the efficiency of the business operations and the fewer the people actively engaged in them. This adds further to the disemployment.

A Program for Survival Needed

Technocrats have always recognized that the most efficient distintegrators of the Price System are its own business and political leaders. Unfortunately, the people must lose faith in the Price System before they will be ready for a new social system. There have been times when we as Technocrats have become impatient with the magnitude of the blunders, the unconscionable wastage of irreplaceable resources, and the 'brinks of war' diplomacy. But we could only observe and analyze, then attempt to inform the public of the trends and dangers; it was not in our province to coerce. Social coercion must come from the people as a body. If a population does not have the virility to design and execute a program of survival in this age of magnified dangers, it is due for defeat and possible annihilation. We trust that such will not be the fate of North Americans.

North America is again approaching that situation where the blunderers in charge of administering the system are trying seriously to commit the greatest blunder of all time—World War III. Wars have been the salvation of business enterprise in the past, at least for part of the participants. World Wars I and II were wonderful for business; the Korean War provided a delightful stimulus. Our present leaders took an active part in those wars; they are now imbued with the fixation that war is the ultimate answer to all economic adversity. They are further deluded by the Hollywood formula that the Good Guys always win—and, of course, we are the Good Guys. When they are ready to go to war over a few worthless little islands along the shore of China, which we occupy only for purposes of irritating China, it is obvious that these leaders are both desperate and fiendish.

For so long as you ask the question, 'How is business?' and get the reply, 'Wonderful,' you know that America is not ready for social change. It is when you get the angry reply, 'To hell with business!' that you will know the time is ripe. At present, there are still valiant efforts being made to reply in optimistic terms. Yet, more and more, one hears words of lament that business is not as good as it might be; although in each case some special excuse is given for it, ranging from unfavorable weather conditions to the unsettled international situation. Technocrats hail this development as a shift in the right direction.

We know that the destiny of this Continent demands the abolition of the Price System and all business enterprise. The sooner this comes about, the quicker the people will be on the road to technological abundance and a balanced load economy.

So we say: Onward to Technocracy. To hell with business!

—Wilton Ivie

One For All and All For One

THE ORGANIZATIONAL structure of a Technocracy Section is, by analogy, equivalent to that of any other dynamic organism. The structure is schematically outlined in By-laws and General Regulations. The problem of organization is, then, the achievement and preservation in the Section of such a state of organic health as shall enable the best possible use to be made of the organism's intake of equipment, money and personnel in furthering its growth and tactical effectiveness.

Technocracy Inc. stands as a monument, a repudiation of the idolatry of Price, a living demonstration that human initiative can achieve what the incentives of this Price System never succeeded in inducing—the creation of a morale that is Continent-wide in scope; and a set of objectives, upon which that morale is based, that are a materialization of the spirit of 'one for all and all for one': of North America, now and forever.

Such a unique esprit-de-corps has been the unfulfilled dream of the philosopher, the general and the statesman alike, throughout all time. Yet, only now, at last, is its realization made possible, in fact inevitable, in the dispassionate and irresistible advance of Science. Science, mighty for good or ill, sublimely impersonal, cares nothing for the prejudice, pride or desire of the individual or even of the nation. Individual or national spirit is hardly within the domain of Science. Yet the destiny of Science must be fulfilled and in its fulfillment the vanity of opinion and of individual self-aggrandizement shall be made subordinate to the carefully determined requirements of the task. In the fulfillment of this great destiny shall be found also the fulfillment of the human heart's desire. Technocracy, in bringing to the world 'a governance of man and things' brings also a new order of human loyalty and a far greater patriotism.

The work that Technocracy Inc. has accomplished, in the face of collective apathy and indecision, is worthy of anyone's respect. Obviously, Technocracy's achievements to date are but a fraction of what must finally be accomplished; but what it has done has been the work of member volunteers, having no resources except their own.

Technocracy likewise claims the respect due to Science in its final maturation as the supremely dominant element in the organization and ordering of society itself.

In viewing the Technocracy Section as analagous to a living organism, the member is compelled to respect the part he himself plays in its growth and development. Whether that part—his individual job—be great or small, it will not be treated lightly. Realizing the interdependence of the whole Organization, he must understand that, to some extent, the whole operation depends upon himself, and that he must never let it down.

The member accepts the job which he finally intends to fulfill. His first responsibility is to persist in the face of any and all difficulty until the job is mastered by him, with or without help. His second, and equally important, responsibility is to train another member to stand in, should need arise, as his deputy. Then, the unforeseen disaster —sickness, accident, or removal—shall not cause any breach of function and consequent injury to the Section's operations. The soldier on guard at his post knows that to leave it constitutes a breach of discipline and a danger to all. He knows that the penalty to him will be severe, and to his unit possibly disastrous. The Technocrat, however, is not made subject to disciplinary action in the military sense. For discipline he must look to his own knowledge, loyalty, and integrity. Yet his position on his job is essentially no different—in fact, the ultimate importance of his job is far greater, regardless of what his job may be.

Technocracy Inc. as a whole, its achievements and its objectives, must constantly be borne in mind as the Section's pattern and long-range aim. It then becomes the member's unavoidable responsibility to help bring his Section up to standard, overcoming whatever inexperience, ignorance, or shortness of vision and judgment as may happen to stand in the way. He will ultimately accomplish this in the same spirit of cheerful cooperation and personal tolerance as he would instill in others! His patience and fortitude will be, if not inexhaustible, at least equal to the strains. No discouragement will turn his determination to find ways and means of seeing his job through. In this he will display those essential qualities of human leadership which have already been so fully demonstrated by the builders of Technocracy in the past. This is the challenge to him who would lead: he is first and foremost a loyal, capable, untiring member.

Does this constitute a demonstration of heroism and moral nobility above the normal human level? It does not. It is the simple result of the individual's acquired understanding of the factors entering into the problem—the circumstances, the people he works with, the requirements of the job, and himself. It constitutes merely his refusal to be governed by any consideration other than the facts in the case, and his refusal to allow himself to be pulled, pushed or tossed about by ill-adapted internal discharges of those complex protein derivatives, his own gandular hormones—those formidable chemical weapons which may as surely help him to success when they are correctly applied, as to failure when they are allowed to run out of control. A Technocrat learns about handling emotional responses in others; he also acquires controlled skill in the use of his own!

—From Aug. 1945 Technocracy Digest,
Notes On Organization

HOMO --- THE SAP

ANTHROPOLOGISTS and historians tell us that mankind lived in trees and caves for a long time. If this is correct, they had plenty of opportunity to observe the behavior of the other wild life around them. They must have noted that it was a system wherein the strong preyed on the weak. It was a case of eat or be eaten, kill or be killed.

Early man did not survive in this environment by obeying these rules. He was always too puny to compete with the carnivora on a physical basis. But he did survive by a combination of hiding from, running away from, and outwitting his natural enemies.

After a while the pressure of his environment forced a defensive idea into his primitive mind. He came together in social groups. The purpose behind this was to multiply his individual strength against the opposing forces of his environment by adding to it the strength of many others of his kind. Thus it was possible to obtain for himself greater individual security. This social movement of early man was the first demonstration of collective intelligence.

Shortly after that some forgotten 'louse' discovered the principle of the relation between value and scarcity. That was the beginning of the Price System. Soon the smarter individuals learned how to apply this principle so as to gain a preferential advantage over individuals in the social group. From there it was just a series of steps to the invention of money, interest, debt, profit, delayed exchanges and the whole caboodle of characteristics that have marked the Price System down through the ages. The foundation of the Price System is rooted in scarcity, value and money. From this spring its three cardinal rules: Buy low, sell high, always keep things scarce.

As time went on the Price System developed, became more refined, and spread all over the world.

It is the only system of trade and commerce ever known. The more refined and developed it becomes, however, the more it remains the same. The same old three cardinal rules are still valid: Buy low, sell high and for God's sake, keep things scarce. That's the secret behind 'want in the midst of plenty.' That's the motive behind the antisocial phenomena of buried patents, high prices, restricted production, monopoly controls and international cartels. They exist in obedience to the cardinal rules of the Price System.

A point to note becomes evident now. The rise of the Price System in primitive social life perverted the original purpose man had in mind when he first came together in social groups. It set man against man individually and as groups. It prostituted his collective intelligence and security to individual chicanery. Man reverted to the law of the jungle. He actually translated the system of the strong preying on the weak, eat or be eaten, kill or be killed, into human laws and institutions.

Every Price System is organized to exchange goods and services for a profit. Any distribution that may result therefrom is purely accidental and incidental to the main purpose at hand. It must never be permitted to become too great lest it endanger scarcity. The primary function of business is to exploit the natural resources of any area and its people for all the profit the traffic can bear. From this nature of the Price System springs the entire collection of ethics, morals and behavior patterns that constitutes modern civilization.

A Factual Analysis

This is not a moral indictment of the Price System but a factual analysis. The Price System is the only type of social system that could have operated under the conditions of natural scarcity that existed in the past. It is futile to guess what form primitive social life might have taken if the Price System hadn't developed out of it. The point is that the concept of price, which subverted the original purposes of social life, rested upon a physical factor of early man's environment. That was a natural scarcity. This is what validated the Price System then and what validates it now wherever a natural scarcity exists. Natural scarcity on the North American Continent went out of the picture about a generation ago. The Price System has been an invalid imposition here ever since then.

Since scarcity has value, it can be bought, sold, exchanged and manipulated. A social system with its rules reflecting these characteristics was bound to arise out of such conditions. An equitable division of the existing scarcity would never have provided a sufficiency for all at any time in the past. This is what validated the Price System.

Since it is a mercantile form of civilization, mercantile ethics prevail. The highest rewards are given to those who can outbuy, outsell, out-exchange and out-manipulate their competitors. This puts a premium upon the exercise of the lowest instincts of the human being. These might be listed as the mercenary instinct and the instinct to lie, cheat, chisel, steal and worse. In fact, it is plain that the operating rules of the Price System are the lowest common denominator of the abilities, intelligence and necessities of mankind.

This is a brief record of the genesis and nature of the old path of social progression. All North Americans still lead their precarious existences under the tyrannical restrictions and regimentations of this old path today. But energy and technology are propelling America along the new path of social progression willy nilly.

The first lesson we observe along America's new pathway is that the way to produce more is to apply more energy and technology and less toil. America's productive ability is not geared down today, as was the case in the past, by the power output of the human body plus the number of workers available. The only thing gearing it down now is the controlling superstructure of business, politics and ecclesiasticism. This triple oligarchy is obstructing the highway along which America's greater destiny lies.

During the period of our development along this new path of social progression, the aforementioned controlling superstructure remained unchanged. Despite the fact that North America has moved into a new physical environment, it is still subject to the ancient operating rules of the old path of social progression.

As a people, we have followed both paths at the same time with growing incompatability and frequent separations, each one more serious than the one before. These took the form of panics and depressions. In 1929 there was a violent parting of the ways. For a while, it looked as if North America would desert the old path for good. But the beneficence of Government brought them both together again. This was accomplished by bribing various minority pressure groups, by destroying the surplus, and by sundry park-building and leafraking projects and the like, not to mention outright charity.

But not a single social problem was solved. Everything was postponed. We muddled along from bad to worse. Then came the second world war, just in the nick of time. But the causes which brought about the frequent conflicts between the two paths of social progression in North America have only been intensified.

Besides setting up intolerable tensions between our industrial and social structures, these dual paths have done something also to us as a people. They have set up a dual set of behavior patterns in all North American citizens. We are a people cursed with a clashing heredity.

For eight hours a day the working person is a citizen of a technological civilization, functioning according to the requirements of his job. For the other 16 hours, he is an opinionated ignoramus, spouting ideas that died of old age 200 years ago. The average man is constantly trying to interpret the future in terms of the past alone. It can't be done! The future can be interpreted only in terms of the past and present combined.

The voice of the Price System is always with us. We can't escape it this side of the grave. It has 7,000 years of accumulated propaganda on tap at all times. This tripe is calculated to condition us into acquiescence towards the status quo.

The Voice of Technology has been mute up-to-date. But now it is beginning to be heard in the land. It speaks with greater and greater effect. It says that North America must abandon the old path of social progression or perish. It says that America's destiny lies on the new technological path, functional control—a Technate.

—W-O-1 Area News

CARGO LOADERS WORK BUT AT NO LABOR SAVING

The labor-saving mechanical cargo loaders of the Grace Line's new passenger ship Santa Rosa were used recently but with no reduction in the number of longshoremen employed.

A 21-man gang of dockers was hired to work each of the mechanized holds although there was work for only 10-man gangs. The others were unnecessary because the cargo was loaded by conveyors through sideports into No. 3 and 4 holds.

The regular full gangs were hired pending negotiation of the problem. A meeting was scheduled.

International Longshoremen's Association leaders want an industry-wide pact covering all types of ships equipped with mechanical cargo-handling equipment. These would include the Santa Rosa's sister ship, the Santa Paula, the two new Moore-McCormack Lines' passenger ships, Brasil and Argentina, and trailer and container ships.

—New York Herald Tribune

Super Colliers

SALEM, Mass. — Pocahontas Steamship Company, operators of colliers and bulk cargo carriers in the Atlantic coastwise and European trade, announced an order has been placed for the first self-discharging super collier, to be delivered in October, 1958.

First East Coast ship to be designed as a self-discharger and largest of its kind, the new super collier will unload coal at the rate of **one ton per second** [3600 tons per hour] and will carry 24,000 tons. Today's conventional colliers carry 11,500 tons and take almost 50 hours to discharge. [300 tons per hour.]

The announcement was made by Horace E. Davenport, vice-president, Pocahontas Steamship Company, on the maiden voyage of the Tanker S.S. Redstone into Salem Harbor, Mass., under the Pocahontas flag. At a meeting aboard the Redstone attended by government and industry officials, Mr. Davenport said that the stern section of the 16,500-ton T-2 tanker will be used in the construction of the new super collier.

In discussing the project, Mr. Davenport stated that one of the most valuable features of the new super collier is a dust-free discharge system that allows high speed discharge of dry coal without air pollution.

Representing the first important development in Atlantic tidewater coal discharging operations since the invention of the clamshell, the new super collier answers the many problems of large volume coal deliveries to wharf and plant and will effect substantial savings in onshore investment and coal handling costs.

The only shoreside equipment required will be a simple hopper and take-away system. The Salem Harbor Station of New England Electric Company has under construction an underground belt conveyor system that, combined with the new super collier, will allow complete automation in coal discharging operations. The belt is enclosed in a pipe, 10 feet in diameter, equipped with gates that permit coal to flow by gravity from open storage.

The American Society of Naval Architects and the American Bureau of Shipping have stated that the Pocahontas self-discharging super collier has greater built-in factors of safety than any existing collier serving the East Coast.

The new super colliers will give all Atlantic deep water terminals easy access to the three great producing Eastern coal fields at the lowest mine to storage transportation cost.

Standard operating procedure is for the ship to come alongside and discharge cargo by her self-unloading boom conveyor. Pivoted at the spar deck, the boom can swing through a horizontal arc of 100 degrees on either side of the ship and can be raised to permit piling coal 60 feet high. The boom can be aimed into a shoreside hopper or swept in a series of arcs to stockpile coal on a ground storage area. The super collier can also discharge into a barge moored alongside.

Push button operations allow complete and instantaneous control over all self-unloading mechanisms. The ship is 635 feet long and has a loaded draft at wharf of 30 feet.

Pocahontas Steamship Company, with 50 years of collier operating experience, anticipates that eventually most East Coast deepwater deliveries will be made by self-discharging super colliers and plans to replace their present fleet of conventional 12,000-ton colliers with new super colliers as rapidly as onshore plants are built or redesigned to take them.

The tanker Redstone, acquired by Pocahontas from the Trinidad Corp., will be used for transporting oil to the New England area until next May when the ship will be sent to Newport News Shipbuilding Company for super collier construction.

BABY BOOM LEVELING OFF

CHICAGO—America's baby boom may be bottoming out. A report prepared for the Journal of the American Medical Association said:

Births in the first quarter of 1958 fell 7,000 from the comparable 1957 figure and marriages also are trailing last year.

"These two declines suggest but do not prove that the end of the baby boom is in sight," the report said.

The report said part of the blame can be hung on the double-barreled effect of the depression of the 30s and the current recession.

"Because of the comparatively small number of births during the 1930s, the number of youths attaining marriageable age continues to be fewer than can be expected during the 1960s," it said.

Although the baby slump may be only an interval in an irregular rise in births and marriages, the report said, it should "make one hesitate about predicting a population explosion in the United States."

—The Oregonian

—We've been hearing that more babies mean more prosperity—looks bad for the Price System.

MY TWO CENTS WORTH

Well, the kids are in school again and the neighborhood is quiet for part of the day at least. Also, you can go shopping in the stores without being pushed and knocked around by rambunctious younguns. I suppose kids are nice in their way and I guess they are necessary, but when you start getting older you notice the noise and jumping around more than when you was young. Maybe it's kinda rough on the teachers, but it's a relief to the rest of us to have the kids back in school. From what I hear, the mothers feel the same way about it.

When I was little and our parents told us to do something, we did it. In fact, we never thought there was anything else we could do about it. But nowadays, when a mother or father tells their kids to do something all they get is arguments and insults. Another thing, the kids all have allowances, which is something that wasn't even thought of in our day except for the rich kids. Of course, there was always plenty of work for the kids to do and everybody expected them to do it. Now, if you have a kid do any work for you, you get into all kinds of trouble. First, you have to pay him almost as much as a grown person, then you get accused of cheating some head of a family out of a job, and then they have regulations about child labor and all that, not to mention social security and whatnot. The welfare people come around and ask you all kinds of questions. It seems funny they never thought of all that in the old days, but I guess they needed the kids to work then, so nobody cared what happened to them.

The kids are so conceited and smart-alecky now you wonder how they ever turn out to be decent citizens. But it's surprising how many of them do settle down and become respectable. Soon they have kids of their own who are just like they were only worse if anything. I think part of it is because the kids don't believe the fibs their parents tell them as much as they used to, so they don't respect them quite so much. But I think it's also because there isn't any place for the kids to fit into the scheme of things. They are just a nuisance until they grow up and get jobs and homes of their own, then everybody is after their money.

As I said, I suppose kids are necessary and I guess they will turn out all right in the end, but it still feels kinda nice to have them back in school.

—Ima Moron

THE ANSWER TO AMERICA'S PROBLEMS

The basic premise of Technocracy is that physical wealth is not measured in terms of labor, goods, or money, but in terms of energy.

WHILE many serious-minded people are aware that something seems wrong with our present economic system, they usually have only a vague feeling that things could be better. If they go so far as to have ideas of improving things, they feel that this has to be done by relatively minor changes in our present institutions — that there 'ought to be a law.' A big change, they feel, could only be a choice between Socialism, Communism, and Fascism, all of which are equally undesirable. This paper is dedicated to describing what is basically wrong and to presenting another alternative which deserves careful consideration.

'With the growth of science and technology we have developed a society of great complexity and a high degree of interdependence. No longer is man at the mercy of his physical environment; he has become more and more dependent upon the smooth functioning of social order. Unfortunately, however, we have not developed a dependable social system, but find ourselves with one which is basically unstable, one which develops stresses resulting in war, depressions, inflations, labor-management conflicts, etc. We do not know whether to anticipate war or peace, prosperity or depression, work or idleness.' [Burleigh B. Gardner, 'Man In An Industrial Society.']

Our present social system is based on commodity valuation and is thus a 'price system.' We can compare the American price system to the horse and buggy. Technology and invention have made transportation by the 'horseless carriage' economically feasible. The reins and whip are adequate for control of a horse and buggy but attemping to control an automobile with whip and reins is obviously foolish. Attempting control of our complex, high energy technology by monetary methods is equally foolish for the same reason—money was developed in the horse and buggy age and will limit us to horse and buggy progress.

Such a limitation is not necessary in America because the continent of North America, with regard to climate, soil, biological, mineralogical, and energy resources, is the most richly endowed continent on earth. It has the resources and the manpower and the technological knowledge necessary to provide every human inhabitant with an optimum physical standard of living at a small and continuously decreasing labor requirement per individual. Yet if we consider the widespread poverty and squalor that is allowed to exist, wastage and destruction of resources, the destruction of products and maintenance of enforced scarcity both by government and by private industry, and the wholesale unemployment, we are obliged to conclude that the actual operation of our social mechanism is vastly inferior to its presently known potentialities.

The operation of technological equipment has made it possible for America to produce an abundance of goods and services. '. . . The sublime irony of our situation is that we must fight and strangle our competitors to get rid of our products "at a price"!' [Claudius Murchison, 'Libel Against Capitalism.']

However, these problems exist only under certain conditions. It is only because of the prevailing existence of scarcity that we have the problems of value, of cost production, of price. Things of unlimited supply do not enter the economic sphere because they have no unlimited price.

Creating artificial scarcity is a major project of the United States government. There have been large surpluses produced in the past that tended to reduce price and profit to the point where business could not make money. By making products scarce, prices would increase, business could operate and the status quo could be maintained. The fact that this prevents any significant rise in our standard of living is considered unimportant.

One man's opinion of this situation is, 'It is a sad commentary on any system of economics which has to view an abundance as a national disaster, to be destroyed or given to people off the area in which it is produced.'

A basic reason for this dilemma is that a Price System demands manpower if it is to succeed, and manpower for production steadily becomes more and more a thing of the past as the kilowatt hour takes its place.

A recent example is given in the September 5, 1957, edition of the New York Wall Street Journal which states that the Continental Baking Company's new million dollar bakery at Indianapolis, Indiana, occupies 102,000 square feet. Its plant is 90% 'automated' with electronic brains routing and controlling almost every stage of production. The plant can bake 6,000 loaves of Wonder Bread an hour. Continental operates 80 plants and bakeries which bake 2,000,000 loaves of bread daily.

Even a high government official admits inability to cope with the problem of trying to maintain scarcity by passing laws. The Los Angeles Herald Express quoted the Secretary of Agriculture as saying, 'Since we apparently cannot legislate scarcity, we must learn to live with abundance.'

Borrow, Borrow, Borrow

Financiers, caught in the grip of forces beyond their control told of their difficulties in these terms. [Since] . . .

> 'Obsolescence retired equipment before it could be paid for, there was nothing for it but to borrow again and issue more bonds and mortgages and start paying interest on that along with the interest on our first borrowing. So higher and higher rose the country's mountain of debt. To make a profit we borrowed, to pay what we borrowed we borrowed more, to make a profit in order to pay off what we had borrowed twice we borrowed all over again. A careful examination of debt figures and the production figures of this country . . . reveals the appalling fact that for years our debts have been increasing at a rate faster than production and both of them faster than the rate of population.'

The culmination of this trend was revealed when on September 19, 1957, the Los Angeles Examiner informed the public that the Secretary of Defense, Wilson, to save money, recently ordered another 100,000-man cut in military forces. The Secretary also stated that between 30,000 and 40,000 civilians would have to be dropped from payrolls. 'We couldn't wait any longer. We are so close to the debt limit that the Treasury can't even borrow the money.' The legal debt limit set by Congress is $275,000,000,000.

This 'mountain of debt' has foothills—of surplus farm products, as evidenced by an item in the Toronto Globe and Mail for July 22, 1957. It stated that President Eisenhower told Congress today that the disposal of farm surpluses abroad will cost the government an estimated $1,600,000,000 by the end of the present budget year which ends June 30, 1958. Per capita butter and cheese are decreasing so the government is taking up the slack by purchasing between April 1 and August 8, 1957, about 115 million pounds of butter and over 105 million pounds of cheese. This is a 6% increase over the same period of 1956 for butter purchases and a **46%** increase in cheese.

But this is only part of the picture. The Hamilton Spectator, in its August 31 issue, revealed that the Eisenhower administration has sunk $20,000,000,000 into price support and crop-reduction programs since 1952. And it has learned that price props do not help farm income and that production controls do not reduce surpluses. The President recently admitted that new farm surpluses are piling up as fast as the old ones are reduced. The Price Support Program gobbles up about $5,000,000 each government work day, yet average farm annual income has dropped by $555 in the last five years. Stored food is now worth $5,300,000,000. Storage costs run **$1,000,000 a day.** Last year the government handed out $179,664,000 in soil bank payments in the mid-western corn belt. Corn production **increased** by 200,000,000 bushels over 1955.

Just how confused the situation really is, was revealed in the August 26, 1957, issue of the Greenville News. It commented on the fact that two federal bureaus seem to be working at cross purposes. The Department of Agriculture has taken over 28,000,000 acres out of production by the soil bank program, while the U. S. Bureau of Reclamation has schedules for 1958 that will bring into production—at the expense of the taxpayer—about 151,000 new acres of high production, irrigated lands, and by 1960 a total of over a million acres.

Overshadowing government bureau mix-ups is the real threat of eventual famine due to depletion of our topsoil, a process virtually unchecked and mostly ignored. 'During the 1936 political campaign Stewart Chase wrote a book called **Rich Land, Poor Land** in which he dramatized with brilliant persuaveness the appalling waste of irreplaceable fertile soil . . . The wastage of other resources had been apparent for a long time. It had been studied in a report of the National Resources Board which hinted at plans of control. Did any political candidate dare talk about these plans before the public? Of course not. It was better to talk abstractions about "The American Way".' [Thurman W. Arnold, 'The Folklore of Capitalism.']

Not too long ago the U. S. held a commanding lead over the rest of the world in total mineral resources. But recent reports indicate that our mineral position has become critical. While other nations have taken many years to deplete their resources, we have done it in a relatively shorter period. From an exporting nation we have become an importing nation of many critical materials in order to continue operating our economy. Nor are we treating our other natural resources as well as we should. We are cutting away our forests destructively, using up the virgin fertility of our soil and draining our ground water resources faster than they can be replaced. [Edward Ackerman, William Vogt and Gilbert White, 'National Resources, Progress and Poverty.'] We should be using our recurrent resources wherever possible and hoarding our non-recurrent ones, particularly in the area of energy resources, for if energy is not utilized it is irretrievably spent. A waterfall is continuously expending energy that in many instances goes to waste, while other sources of valuable, irreplaceable energy, such as coal and oil, are employed. [Murchison.]

Build a Better Product

Businessmen are aware of such problems, but find themselves in circumstances which reward ignoring them. A classic example of how the public has been duped and exploitation of resources expanded by creation of wholly artificial wants is given by a tale of two razor blades—a true story. A safety razor, the Star, was introduced to America in the 1890's. People who bought this razor over forty years ago are still using it with the original blades. Business, of course, for this company could not have been very flourishing. It does not appear strange, therefore, that it should long since have ceased to exist. The fundamental conflict between production for social welfare on the one hand, is contrasted with what is good business on the other. It is not our purpose to intimate that the businessmen are at fault; we only want to point out that, under the rules of the game of the Price System, it is better business to maintain scarcity and to turn out cheap shoddy products which, like the Gillette razor blade, will be used a few times and then have to be discarded and replaced by another. It is also observed that if, under the same rules of the game, one fails to conform and produces, as in the Star razor, a superior product, he does not long remain in business.

This activity extends to other fields, as reported in the Los Angeles Mirror on September 10, 1957, 'The harried TV set maker and dealer would like several million American families to decide their old sets are obsolete and poor things indeed compared to the ones the "Jones" are sporting. For years the auto makers have thrived on convincing Americans that their old cars made the family lose social standing. Way before that, women's apparel industry learned how to make wives unhappily sure that last year's wardrobe was unfit to be seen in public. Now the TV industry is going to try the same thing.'

Makes You Want a New Model

Such activity is, of necessity, quite general, and the Price System, given its way, overwhelms us with goods. It not only indulges all known wants to the point of satiety, it frantically endeavors to create new wants for the sake of their fulfillment.

American business is adept at this 'market creation' and as a result of applied technology under the Price System the profits of the industrialists are the highest in history. Instead of the reduced cost of production being passed on to the consumers, as it states in the propaganda advertisements of big business, 'the markup in the price is increased, both in actual figures and in percentages,' so that as the cost of production goes down the price the consumer pays goes up. Thus the discrepancy between the purchasing power paid to the consumer and the sale price of the goods produced becomes wider and wider.

This tends to steadily concentrate economic power in fewer hands, and such power has inevitable effects on our mores. 'It is significant that in our society the work one does is an important aspect of his status. A lowly position in the factory hierarchy is apt to reflect itself in a lowly position in the community.' [Gardner.] Wealth is power, and is not only respected, but feared. It is a truism of our times that justice before the law often depends on who has the best—and most expensive—lawyers.

Not everyone accepts these conditions as inevitable. 'It is felt by many that nothing short of a fundamental change in the political and economic system will bring about a social organization in which the welfare of the individual and of society will become of primary importance, instead of economic rights, as at present.' [Julia E. Johnsen, 'Capitalism and Its Alternatives.']

As previously stated, we are by virtue of our technology living in a high energy civilization. The end products attained by a high energy social mechanism on the North American continent will be: [a] A high physical standard of living, [b] A high standard of public health, [c] A minimum of unnecessary labor, [d] A minimum of wastage of nonreplaceable resources, [e] An educational system to train the entire younger generation indiscriminately as regards all considerations other than inherent ability. The achievement of these ends will result from a centralized control with a social organization built along functional lines, similar to that of the operating force of any large functional unit of the present such as the telephone system or the power system. Such an organization has no precedent in any of the political forms. It is neither a democracy, an aristocracy, a plutocracy, a dictatorship, nor any of the other familiar political forms, all of which are completely inadequate and incompetent to handle the job. It is, instead, a Technocracy, being built along the technological lines of the job in hand.

The American People Encyclopedia defines Technocracy thus: 'Technocracy is a proposed system of governmental organization based on the application of economic and managerial techniques to the political problems . . . Technocrats argue that the solution of social problems including that of depressions rests on the application of methods parallel to those of technological engineering in industry . . . Unemployment, discrepancies between production and consumption and waste of manpower and resources resulted, they assert, from old fashioned free market methods and political devices.'

The basic premise of Technocracy is that physical wealth is not measured in terms of labor, goods or money, but in terms of energy. The cause of our troubles lies in the fact that during these years instead of thinking of our well being and of the operation of our country in terms of energy, we have thought if it in terms of something purchasable with dollars. This raises the question of how such a concept can be put to practical use. In answer to the query, raised by one of its readers, as to what Technocracy intends to substitute for money, the October 7, 1957, Stockton Record stated, 'Technocracy proposed that all citizens should be given at thirty-day intervals, non-negotiable and non-transferable "energy certificates" or tokens of equal purchasing power. Goods would be priced on the basis of the energy required to produce them. No matter how great or small his own contribution to the nation's production, each citizen was to have equal purchasing power, as long as he lived.'

Production vs. Consumption

The Technocracy Study Course amplifies this idea:

'If the production is to be non-oscillatory and maintained at a high level so as to provide a high standard of living, it follows that consumption must be kept equal to production, and that a system of distribution must be designed which will allow this. This system of distribution must do the following things: . . . By means of the registration of energy converted and consumed, make possible a balanced load. Provide a continuous inventory of all production and consumption . . . Allow the citizen the widest latitude of choice in consuming his individual share of Continental physical wealth. Distribute goods and services to every member of the population . . . Still further properties that must be incorporated into this energy income received **by** individuals are that it must be non-negotiable and non-saveable. That is, it must be valid only in the hands of the person to whom issued and in no circumstances transferable to any other individual. Likewise, since it is issued on the basis of a budget expenditure covering two years, it must only be valid for that two-year period, and null and void thereafter. Otherwise it would be saved in part, and serve to completely upset the balance in the operating load in future periods. On the other hand, there is no need for saving, because an income and social security are already guaranteed independently to each individual until death . . . With a re-design of our social mechanism along the lines indicated, there will be a much larger number of jobs which will cease to exist than of new jobs which will be created. This would not imply then, as it does now, that there would be unemployment. It merely signifies, on the one hand, that we are assured of an ample supply of human services for all possible contingencies while operating the mechanism at the highest output per capita ever achieved. It means, in addition, that all this will be accomplished simultaneously with a shortening, rather than with a lengthening of the working day.'

Misconceptions are always present when so revolutionary an idea as Technocracy is first encountered. Bias and prejudice are inevitable. The test of time has not found the proposals and predictions of the early organization of Technocracy in error. They are as valid today as when published twenty years or more ago. Unlike most programs offered as alternatives to our present system, the Technocrats have no theories of 'taking over' or creating the conditions to cause our present system to collapse. They are more like prophets who, having predicted the failure of our present system from its inability to handle the problems of our society, are attempting to point the way to a safe exit that can be used when events make it necessary to do so.

The Encyclopedia Americana is often quoted in Technocratic literature. It states: 'Whatever the future of Technocracy, one must fairly say that it is the only program of social and economic reconstruction which is in complete intellectual and technical accord with the age in which we live.'

—KAY WILBER, 11833-2

A POLITICAL ANSWER TO A SEARCHING STATEMENT

LETTER

Hon. Jack Westland, Congressman
2nd District, Washington State

If this inane and idiotic program of lend-lease, give-and-forget, here-it-is-come-after-it-or-we-will ship-it-to-you - and - charge - it - to - the - great - American-Taxpayer, can be continued for a few more years, no problem will ever trouble you again, as there will be no United States of America, and you can proudly tell your grandchildren [if you and they are lucky enough to survive a few attacks of germ warfare] that this North America that had nearly one-half of the world's known resources reached a point of development that no nation in history ever reached, in that we could grow or manufacture nearly everything that was necessary to raise their living standards.

But our Price System could not distribute this abundance, and this Price System, that started slowing down in 1920 and fell flat on its face by 1930, has been kept going ever since by larger and larger injections of Government credit. So that now the State of Washington's share of the Federal Debt of 1953 amounted to $2 billion dollars more than the assessed value of all the real and personal property in the State of Washington.

Future historians will probably put it this way, "From 1914 on the periods of greatest employment and prosperity in the United States were when they were at war or were engaged in supplying other Nations with war material, and they were the only Nation in history ever to drop atomic bombs on other human beings."

The different things that you mentioned are like trying to mop the kitchen floor when the sink is running over. The only thing that will do any good will be a program of Total Conscription of the men, machines, material, and money for the total defense of this North America.

I am enclosing a few leaflets to explain what I mean.

Thank you for your questionnaire and I wish you a very happy landing in the New America [if there is one].

Very truly yours,
David E. Livingston

THE ANSWER

Mr. David E. Livingston
3002 Gedney Street
Everett, Washington

Dear Mr. Livingston:

I have your letter of March 11, with enclosed material from Technocracy Inc.

I appreciate getting your viewpoint, but cannot share your pessimism as to the future of the United States. Certainly we are going through a very difficult and dangerous time, but I feel, as in the past, we will weather the storm successfully and come out with this country being even a better place in which to live.

Sincerely yours,
Jack Westland
Member of Congress

Have You Observed?

. . . **Many tens** of thousands of automotive workers, now unemployed because of market saturation with automobiles, had better look elsewhere for a livelihood. Technology has caught up with them. As reported in the Technocracy Digest Magazine, from The Nation, in 1947, 648,000 auto workers produced five million cars and trucks. But in 1957, 652,000 workers produced 7.2 million cars and trucks. To put it another way, for .6 of one per cent increase in manpower, production was increased forty-four percent in that ten year period! Mechanization of the production process has made it possible to reach the 1947 production level of five million vehicles with 287,000 fewer workers. What are the chances of selling seven or eight million vehicles next year? Not very promising from the looks of the economy now.

. . . **We are constantly** subjected to the Price System propaganda of how this system has made abundant living possible. Only secondarily, if at all, is it mentioned that science and engineering deserve the credit. The cost in resource devastation, as the result of Price System waste and inefficiency, is never mentioned. Critical shortages of basic resources are beginning to be felt, for example, in copper. In 1850 copper content of ore being processed averaged thirteen percent. By 1900 the content had fallen to five percent. At the present time the average copper content of all ore being mined is .8 of one percent and is still declining. Where is copper for the future going to come from? It will not be from the United States. Ask Technocracy for the answer. The Price System has no answer.

. . . **According** to Al Butler, physics department instructor at Washington State College, the U. S. has, since 1942, used fifty percent of all gas and oil consumed in this country. Petroleum products are being used in such prodigious quantities in the U. S. that two million barrels of oil must be imported daily to supply the demand, despite the fact that 6.3 million barrels of oil are produced domestically per day. It is inevitable that the growing demand for oil in the U. S. will exhaust domestic sources of liquid petroleum, placing a heavier demand on foreign sources. Does this help to explain the intense interest of U. S. oil companies and the State Department in Middle East affairs? After all, the Middle East is reputed to have sixty percent of world oil reserves.

. . . **Those 'dirty Russians'** are forever giving the 'free, competitive enterprise system' of the 'free world' a very bad time. Now they are exporting tin cheaper than international cartel prices. Recently, the Russians were invited to join the tin cartel, which fixes tin prices in contradiction to the free, competitive spirit that the gentlemen of the cartel are supposed to represent. To the rage of these gentlemen, the Russians declined to join in the price fixing game, according to the report. We would ask two questions: Who is really for business competition in business; and who in business wouldn't do business with the Russians or anyone else if there is a 'fast buck' in it?

. . . **J. Edgar Hoover** says crime has reached such proportions that it is now costing $22 billion per year in America, which is $128 per man, woman and child. Technocracy asks, what is the difference whether one is held up with a gun or a price tag? Crime, as we recognize it, is just a more extreme expression of business practices. It is a part of the Price System, like banking, insurance, or any other Price System activity. Hundreds of thousands of people make a living because crime is such a big, prosperous business—policemen, office workers in bonding and insurance companies, guards for the convicted, locksmiths, lawyers, to name a few. The Price System doesn't want to eliminate crime. Technocracy points out that ninety-five percent of crime can be eliminated by producing and distributing the abundance of which this economy is capable. Thus, the major reason for crime can be eliminated. We'll bet J. Edgar Hoover wouldn't 'buy' this answer to crime.

—12247-1

TECHNOCRACY IN THE FIELD

The Members of Technocracy apply their efforts in various ways to bring to the attention of all North Americans the significance of the present social trends and the need for a technological solution to the problems which arise out of them. They realize that only through their activities and efforts is the public made aware of Technocracy's Program.

Official Gray Cars and Drivers

Northwest Area Gray Fleet Review

A symbolization event was held on June 22nd when some of the Members in the Northwest Area owning Official Gray Cars assembled on busy U. S. Highway 99 between Everett and Seattle, Washington, for an Area Gray Fleet Review.

Traffic on the thoroughfare slowed to an estimated 10 miles an hour in a 60 miles an hour zone to enable the passing motorists to try to satisfy their curiosity about the lineup of shiny gray and red automobiles on the gravelled, unused portion of the four-lane highway. Such activities always attract public attention. This event was no exception according to reports received from Members.

As a means of making the public aware of Technocracy, the Member driving an Official Gray Car has the greatest opportunity of all. Most drivers keep a supply of Technocracy literature with them to be given out to anyone seeking information. Many carry literature boxes to place on the outside of the car when they park so that interested persons may help themselves.

The driver of an Official Gray Car can be identified immediately as a Member of Technocracy Inc., the only Organization on the Continent that knows where it is going and why. Ask the next Gray Car driver about Technocracy. You need the information he has.

ARE THE RIGHT FOLKS IN CHARGE?

American scientists attending the International Geophysical Year committee sessions in Moscow are enthusiastic about the work being done by their Russian opposite numbers.

In fact, the mutual admiration of Soviet and U. S. scientists for each other is perhaps the most notable report to come from the meetings, despite the undeniable importance of the technical data exchanged.

These experts seem able to get along with understanding and respect, whereas their governments are constantly at daggers' points over the ramparts of their respective worlds.

Perhaps the reason for this scientific accord, as opposed to the lack thereof at the political level, comes from a basic difference in aim.

The scientists aim to acquire knowledge.

The politicos aim to acquire power.

When you acquire knowledge you don't diminish another scientist's knowledge an iota. Indeed, you add to your own by research.

It's different when you acquire power. You do diminish the other nation's power as your own power rises in a given field.

Knowledge, of course, is a sort of power. But the difference lies in application of that power.

Pure science aims at knowledge for its own sake, pushing back the barriers of the unknown to increase the human understanding of the world we ALL live in.

To put it in the vernacular, the scientist gets his kicks from the power and mastery over facts that his knowledge gives him.

Political power aims at mastery over people and nations, the imposition of your will on the other fellow against his will.

Looking at it objectively, you might come to the conclusion that the scientists have climbed a lot farther up evolution's ladder as individuals.

Even when they're dealing with quasi-political matters the scientists seem to be able to work together better than the professional political leaders.

Russian and American scientists at Geneva recently were able to agree on methods for monitoring nuclear tests in a brief and productive session.

Yes—sometimes you wonder if we've got the right crowd running the world's affairs . . .

—Los Angeles News

ANGLICAN BISHOPS O.K. BIRTH CONTROL

LONDON — Bishops of the Anglican Church have indorsed birth control as a "right and important factor in Christian family life."

The leaders of the 40,000,000-member church took their revolutionary stand at the recent Lambeth Conference in London. Ninety American Episcopalian bishops were among the 300 attending the conference.

The report was drafted by the Rt. Rev. Stephen F. Bayne, Jr., of Seattle, bishop of the Diocese of Olympia.

The Archbishop of Canterbury, the Most Rev. Dr. Geoffrey Fisher, who presided at the conference's closed sessions, said it was the first time the Anglican Communion had considered family planning by scientific means.

The decisions of the conference, held every ten years, are intended to guide the churches of the world-wide Anglican Communion but are not binding.

"It is utterly wrong," said the conference report indorsing birth control, "to urge that, unless children are specifically desired, sexual intercourse is of the nature of sin. It is also wrong to say that such intercourse ought not to be engaged in except with the willing intention to procreate children."

The bishops failed to agree unanimously on the moral problem of nuclear weapons.

—Seattle Times

SYSTEM LANDS JET PLANE WITHOUT BENEFIT OF PILOT

An automatic all-weather landing system developed by Bell Aircraft Corp. has been used successfully to land the giant Boeing 707 jet transport plane without the pilot touching the controls, the Bell Company reports.

Preliminary evaluation of the system for commercial use now is under way by the Airways Modernization Board and the Civil Aeronautics Administration. It has been evaluated by Pan American World Airways, KLM Royal Dutch Airlines, British Overseas Airways and Lufthansa.

The equipment, employing a combination of radio and radar, is similar to that developed for the Navy and the Air Force. It takes over from the pilot while the aircraft is two to four miles off the end of the runway and is operable even under adverse weather conditions, the company states.

—New York Herald Tribune

IT'S LIKE THIS . . .

Diplomacy, as a profession, seems to be the problem child of the Twentieth Century. All the other arts and sciences have advanced. It's hard to tell whether diplomacy is simply standing still or is in a retrograde movement. The latter is the case, I fear.

Certainly there was never more unanimity among the peoples of the earth that they DON'T want war and at the same time there have been few times when there were more shrill warnings and alarms over imminent conflict. Most of the panicky cries come from the diplomats.

Things have reached the stage where a simple acceptance of an offer for a meeting throws the foreign service corps of the world into a state of outrage. It's almost as though a declaration of willingness to sit down and talk were unethical practice. There are dark mutterings, headshaking and dismayed talk about "secret motives."

It's evident the rest of the profession looks upon simplification of meeting arrangements as a sort of heresy. The ethical thing for a diplomat to do is to PREVENT a conference, to find ways of thwarting agreement.

Reaching for Agreement

This strange apprehension over getting together in any degree was evident when the scientists of East and West convened to work out some mutual rules of atomic procedure at Geneva.

You never heard such mother-hen cluckings, such dire forebodings as came from the diplomatic professionals on both sides of the Iron Curtain just before the men of science sat down to talk things over.

These men would bungle everything. What did they know about international conferences? They might—if left to their own crude devices—reach agreement on something.

Despite these misgivings the scientists finally were allowed to seek a joint solution to a specific problem· Find a way by which nations may check up on each other's atomic tests of any kind, anywhere, any time.

The direst predictions of the diplomats have been realized.

Paying no attention to world politics, ignoring the Middle East, this assemblage of learned men DID reach an agreement. What's worse, several agreements.

Only recently it was revealed they had explored in businesslike manner how to detect atomic detonations of all the types so far attempted and had mutually accepted various methods.

Then they turned to kinds of explosions not yet tried—for example, a blast so high in the stratosphere or outer space that present recording devices wouldn't note it.

Propaganda Cry

The professional diplomats won't like this, but the East-West scientists reached an agreement on THAT, too. They figured out a way by which even the most remote sneak explosion could be spotted through use of earth satellites.

I don't know just what courses are offered at foreign service schools over the world, but I suspect the first rule drilled into the future diplomats is: When in doubt, yell "Propaganda!"

This threadbare device has been used so widely by even the topnotchers in the profession that it makes more embarrassing the obvious lack of constructive ideas.

However, the diplomats will soon be faced with a real test. What do they do when confronted with a logical and unified answer to the question assigned the East-West scientists?

This will be a tough one to block. It will require the utmost of professional ingenuity. It might even result in new and original thinking.

But no, that's really too much to hope for. I imagine they'll wind up falling back on the old reliable—"Propaganda!"

After all that's always a safe way of preventing action. Ethical, too.

By Robert W. Akers

—Beaumont, Texas, Enterprise

The new paving machine in action
Photos courtesy of Seattle Times

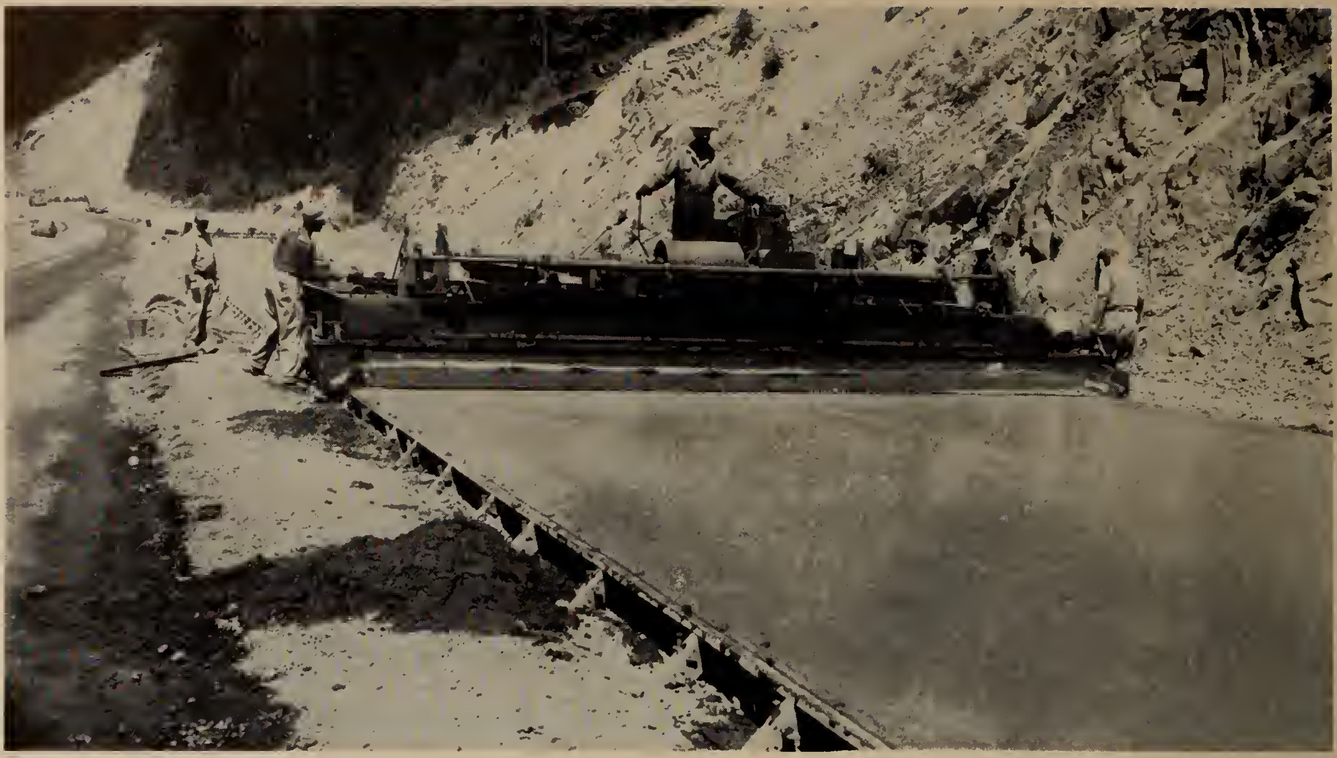
Continuous Concrete Road

EAST OF SEATTLE on Snoqualmie Pass in the Cascade Mountains a continuous ribbon of white concrete is being laid down at an amazing rate by a newly developed paving machine. This is one of the major highway projects in the State of Washington. The project consists of constructing a double thoroughfare with two Eastbound lanes and two Westbound lanes on the Sunset Highway, the main cross-state road.

In place of the conventional method of laying concrete in two 12-foot-wide strips in separate pourings, the new paving machine is capable of laying a continuous strip 24 feet wide. Continuous flow of concrete without stopping for the installation of expansion joint material speeds up the rate of performance. The paving machine has been designed to mix, plane and float freshly poured concrete into a smooth, uniform and continuous ribbon of highway. This equipment rolls on heavy steel rails which serve as forms for the nine-inch-thick concrete roadbed. It is equipped with two mixers. Each mixer is capable of mixing sand, gravel, cement and water at the rate of 160,000 pounds an hour and then spills it out in front of the planer.

To feed the mixers, huge compartmented trucks are loaded at a nearby batching plant with proportions meeting state specifications. When dumped into big scoops on the mixers, the aggregate is partially mixed.

When operating at maximum efficiency, this 'highway factory' is capable of laying the 24-foot-wide by nine-inch-thick roadbed of concrete at the rate of 200 feet an hour. About a third of a mile of highway can be manufactured in a nine-hour shift. Approximately a mile of special track is used



for this operation. After the concrete has cured for 24 hours or so, it is firm enough so that the aft sections of track can be removed and set up forward of the paving machine. Enough track is provided so that the machine can operate continuously without stopping the operation to allow the concrete to cure.

To provide for the expansion of concrete, two-inch-deep slots are cut in the concrete ribbon, using diamond-tipped rotary saws. A cut is made down the middle of the roadbed. Slots are cut across the highway every 15 feet. This method produces a smoother highway with no variation at the joints.

The old method of keeping freshly poured concrete wet with burlap and sprinkling systems has been replaced by a special sealer, resembling white paint, which is applied by a paint sprayer operating on the same form-track provided for the paving machine. It is mandatory that concrete cure slowly with the proper amount of moisture to insure that it has adequate strength when cured. Approximately 10 days are required for curing before traffic can use the road.

Another step has been taken in the elimination of toil by utilizing tools which operate on extraneous energy. Progress may be measured by the number of machines used in reducing toil.

—12247-3

PIPE PLANT IS OPENED BY MANVILLE

Johns-Manville Corp. recenty opened what it called the nation's first continuous process asbestos-cement pipe line plant at Denison, Texas. The 186,000-square-foot factory, controlled by electronic devices, has been described as comparable to the first continuous steel mill or first continuous process for extrusion of metal tube.

The process is made possible by a double press section arrangement which permits formation of pipe at two stations. The new system is expected to boost production by 30 percent over that attained by previous methods. The plant has a rated capacity of 48,000 tons.

—New York Times

—The boost in production is incidental to the most important reason for the improvement—reduction of man-hours.

CORRECTION

In the article (July 1958) 'Organization in Nature and Society' a technical error occurred on page 3, fifth paragraph, bottom of second column. The sentence reading, 'Blue light, for example, consists of rays in which the protons are in the vicinity of a half-millionth of an inch apart,' should read instead as follows: '. . . in the vicinity of a fifty-thousandth of an inch apart.' Also in the first paragraph on page 4, the sentence reading, 'Most electrons, however, are known as atoms,' should read instead, 'Most electrons, however, are associated with larger organizations of matter known as atoms.'

DEVELOPING TRENDS

CONVEYOR SORTS PACKAGES AT HIGH SPEEDS

A new high speed "electro automated" assorter-conveyor which can separate packages of all sizes and shapes to fifteen different distribution points is now in operation at Railway Express terminal facilities in Long Island City. The unique machine—which can practically see and think for itself—is 180 feet long, three feet wide and has been integrated into the terminal's main powered conveyor line to help further speed the handling and distribution of inbound and outbound express shipments through the metropolitan area. In action triangular shaped steel fingers ("Boots") slide through aluminum slats of the conveyor to guide packages down the appropriate distribution line. The proper number of steel fingers are pushed into position by solenoid activated microswitches which receive instructions from the Master Control Unit and the memory wheel in the synchrotimer device. Microswitches, mounted opposite the slat slides of the conveyor are adequately spaced to service each different operation.

—New York Herald Tribune

MACHINES SPEED UP LETTER SORTING

WASHINGTON — The Post Office Department announced plans to break the letter jam. From Burroughs Corporation, Detroit, it has ordered ($1,200,000 contract) ten machines which will permit sorting 3,000 letters an hour to 300 destinations. Also, Pitney-Bowes, Inc., Stamford, Conn., got a $1,500,000 contract for research of letter-sorting machines.

—Associated Press

—How about a Continental System with punch or magnetic-coded envelopes automatically sorted?

21 TRAINS NOW DOWN TO NONE

OSKALOOSA, Iowa—The extent to which the Iowa State Commerce Commission has gone in permitting railroads to abandon service was dramatized recently when the runs of two Minneapolis & St. Louis passenger trains were terminated.

That left this city of 11,124 completely without passenger service. The trains, operating between Albert Lea, Minn., and Albia, Iowa, were the last of 21 passenger trains that served the city 20 years ago.

—Labor

"ANNIHILATION"

Congressman Charles A. Boyle (Dem., Ill.) in a floor speech, said: "We must search for areas of common agreement with the Soviet Union, resolving some of the issues piecemeal rather than attacking the whole obtuse and occult area as a package deal. Unless we abolish nuclear warfare, we would be leading ourselves and the rest of the world down the path of total annihilation."

—Labor

—Words to get votes?

IMPROVED CORDUROY FABRIC DEVELOPED

An advance in finishing corduroy, a cotton fabric often fashioned into work and casual clothing, was announced recently by the innovator, Rubin Levine, president of Rubin Levine & Co., Inc., textile converter.

His fabric, an improved, velvet-like corduroy, makes use of a new nylon finish, silicones and resins. It is a wash-and-wear fabric, water-repellent and able to take lustrous vat dyes, according to Mr. Levine. Last year he introduced a similar finish without the silicones.

The product, registered as Cultured Velvet Cord, is being used in women's dresses, blouses, sportswear and in children's dresses and rainwear and is being sampled in men's and boys' shirts and jackets.

The nylon used is a special formulation known as zytel nylon 61 flakes that can be reduced to a solution or a suspension. It usually is used by manufacturers for surface coatings for fabrics.

The announcement is considered of interest in the textile trade because corduroy gray goods have been extremely low in price and mills have been more or less idling.

The introduction of an improved corduroy finish, an important construction, is therefore regarded as likely to spur interest in the lagging market.

Mr. Levine, who noted that velvet and corduroy were popular pile fabrics for women's apparel for fall, said that mills producing the construction reported that corduroy gray goods inventory was low because of the low price situation, which makes it unprofitable for many mills to operate.

—New York Times

—The product will probably wear longer and depress the market further.

SLUMS COSTLY

How costly are slums to American communities? According to the Federal Works Agency, slums and substandard districts comprise 20 percent of a city's residential area. They also account for:

33 percent of the urban population.
45 percent of the major crimes.
55 percent of the juvenile delinquency.
50 percent of the arrests.
60 percent of the tuberculosis victims.
35 percent of the fires.
45 percent of the total city service costs.

But slums and substandard districts return only 6 percent of the real estate tax revenues.

—The Oregonian

MORE SPENT ON NEWSPAPERS

People spend more for their daily newspapers than they do for any other form of reading matter.

—Wichita Eagle

—No wonder they don't know anything.

PRISON CONGESTION IN CONNECTICUT AT ACUTE STAGE

WETHERSFIELD, Conn.—An extraordinarily high number of convictions by state courts during the past several months has produced a serious overcrowded condition at the Connecticut State Prison.

Warden Mark S. Richmond said recently the congestion has become so acute that storerooms and a gymnasium have had to be converted into dormitories for selected "semi-honor" prisoners. He predicted that soon it may be necessary to put cots in corridors or "pitch tents in the yard."

—United Press

—Crimes rise as the economy sinks.

WHEAT CROP HIGH

With the harvesting of winter wheat progressing rapidly and in near-record volume from the Texas plains to central Kansas, railroads of the area are finding a tightening of supply in suitable box cars, the car service division of the Association of American Railroads reports. Some shortages have been reported in specific areas, and additional cars are being dispatched to the region to ease the situation.

The June 1 forecast of the winter wheat crop was 1,069,000,000 bushels, largest on record, and 51 percent above last year. With this flood of grain pouring from the fields, storage is at a premium and the government is moving out grain from the previous crop, taken on stabilization loans, to areas as far **from producing areas as the mothball fleets in East Coast waters.**

—Associated Press

—Abundance must be hidden to preserve the Price System.

SPEEDY TELETYPE

NEW YORK—A super-speed teletypewriter that prints a message five times faster than the average woman can talk has been developed for the U. S. Army Signal Research and Development Laboratory at Ft. Monmouth.

The machine, put together by Kleinschmidt Laboratories, a subsidiary of the Smith-Corona Co., was given a press preview at the Biltmore Hotel.

The teletypewriter does just about what the average, traditional facility of its kind does today—but much, much faster. It can bang out 750 words a minute—which is 12 times faster than the average typist can type, 10 times faster than the old fashioned teletypewriter.

The machine does not have a direct keyboard, but is operated by perforated tape fed into it. The tape is prepared ahead of time on a perforator. The tape, about seven-eighths of an inch wide, uses combinations of holes to indicate every letter, numeral and punctuation mark.

Inside the new unit, a whirling wheel rimmed with letters prints the high-speed messages. The wheel spins at 3,750 revolutions per minute, as fast as the wheels of a car going 500 miles per hour.

At the precise instant the correct letter comes into position, a tiny hammer strikes the paper against the type wheel. Messages are typed out on paper tape which emerges at the rate of more than 7½ inches per second. These taped messages can be relayed rapidly to other points, or they can be printed on the spot in page form by automatic typewriters.

The printer is similar to systems used by news services to rush stories to newspapers, but is more than 12 times faster. It could receive and print every word of a full-page of a standard-size newspaper in less than eight minutes.

—Newark Evening News

SYNTHETIC ROPE ON SHIPS SEEN CUTTING HEMP IMPORTS

The introduction of synthetic rope into the marine industry will result in a decrease in shipping traffic from hemp-producing countries within the next five years, William C. Cating, president of the Cating Rope Works, predicted.

Domestically produced nylon, dacron, and polyethylene line —which is expected to make manila obsolete in shipping within five years—will make hemp imports unnecessary, Mr. Cating said.

"But the advantages of synthetic rope in shipping," he explained, "will outweigh the loss. Nylon has more than twice the strength of manila, it can be stowed when wet, it is lighter, has good elasticity and can absorb and spread greater shock loads."

In an endurance test a nylon line which was two and one-third inches in circumference held until a stress of 19,450 pounds was reached. The same size manila rope split pulling 7,700 pounds.

The development of the new synthetic — polyethylene — brought a special problem to the marine industry. Rats preferred this fiber for building nests and chemical engineers had to develop a smell which was repellent to rodents before the line could be accepted for use on ships.

"Soon the marine industry will notice a reduced volume of cordage used in New York harbor," Mr. Cating said. "Nylon lasts four times as long as manila. Also, with the synthetics, seamen will have an easier job handling the line because smaller and lighter rope can be used.

—New York Herald Tribune

TECHNOLOGY TO LIFT LIVING STANDARDS

PITTSBURGH—Technological advances by American industry in the next 20 years will raise the standard of living 50 percent, A. C. Monteith, vice-president, Westinghouse Electric Corp., predicted.

Addressing the materials handling conference of the American Institute of Electrical Engineers, he said that "by 1978 the industrial machine of the U. S. will be larger and infinitely more complex."

"In manufacturing establishments through the country most information will be presented to the shop in the form of magnetic tape or punched cards rather than blueprints," he declared.

Some of the greatest changes in this country's industrial economy will be made in materials handling processes, he predicted. "Belt conveyor systems will be competing with truck lines and railroads as common carriers of freight for hundreds of miles across country," he said.

—New York World-Telegram and Sun

—But the Price System still tries to distribute goods and services on the basis of man-hours worked.

PACKAGING GROWING

LONDON—The container and packaging industry in the United States is already larger than the automobile industry, and should pass the $15,000,000,000 sales mark by 1965, J. P. Levis, chairman of Owens-Illinois Glass Co., told the London Society of Investment Analysts.

Mr. Levis predicted the packaging revolution still under way in the United States would "keep pace with the trend to self-service in all types of retailing," and added that "new, self-service convenience packaging trends are moving in fast to revamp whole departments, entire stores, complete chains and whole distribution systems."

—Herald Tribune Bureau

TECHNOCRACY

North America's Only Social Dynamic

WHAT?

Technocracy is the only North American social movement with a North American program which has become widespread on this Continent. It has no affiliation with any other organization, group or association either in America ro elsewhere. The basic unit of Technocracy is the chartered Section consisting of a minimum of 50 members and running up to several hundred. It is not a commercial organization or a political party; it has no financial subsidy or endowments and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are $9.00 which are paid by the member to his local Section. Members wear the chromium and vermilion insignia of Technocracy — the Monad, an ancient generic symbol signifying balance.

WHEN?

Technocracy originated in the winter of 1918-19 when Howard Scott formed a group of scientists, engineers and economists that became known in 1920 as the Technical Alliance—a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934 Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundation of the present Continent-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses, or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing!

WHERE?

There are units and members of Technocracy in almost every province in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces. Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the nearest Technocracy unit.

WHO?

Technocracy was built in America by Americans. It is composed of American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this Continent. Membership is open only to American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective office or active office in any political party.) Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher or housewife—so long as you are a patriotic American—you are welcome in Technocracy.

Pamphlets

Introduction to Technocracy	25c
America Must Show the Way	15c
Our Country Right or Wrong	15c
Continentalism—The Mandate of Survival	15c
Make Way for Social Change	15c
I Am the Price System, and The Culture of Abundance	15c
Man-Hours and Distribution	15c
The Energy Certificate	15c
Science versus Chaos	10c

SUBSCRIPTION ORDER

To: THE NORTHWEST TECHNOCRAT
2208 Eighth Avenue
Seattle 1, Washington

Enclosed herewith is $..................to cover.................. subscription(s) to Technocracy's Magazines for........ years.

All Three Magazines, 12 months, 12 issues, $3.00. (All three publications are quarterlies, but so rotated that one appears each month.)

THE NORTHWEST TECHNOCRAT
TECHNOCRACY DIGEST
THE TECHNOCRAT

☐ This is a NEW subscription.
☐ This is a RENEWAL subscription.

Name..

Address..

City.................................. Zone.......... State..........................

(or) City.................................. Province..........................

(Foreign rates, other than Canada, Mexico, and U. S. territories, 20% (60c) additional to above rates.)

One For All and All For One

Technocracy Inc. stands as a monument, a repudiation of the idolatry of Price, a living demonstration that human initiative can acheive what the incentives of this Price System never succeeded in inducing—the creation of a morale that is Continent-wide in scope; and a set of objectives, upon which that morale is based, that are a materialization of the spirit of 'one for all and all for one': of North America, now and forever.

GROUP A. R.D. 11353
TECHNOCRACY, INC.
BOX 653 _ EDMONTON

TECHNOCRACY
PROVIDES THE DESIGN
FOR THE
DISTRIBUTION OF ABUNDANCE
TO
ALL NORTH AMERICANS

Ph. GA 4-8352

Ph. GA 4-8352

Ph. GA 4-8352